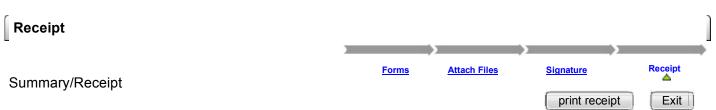
Username:JPYODER Nickname: JARROD YODER



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DEP Transaction ID: 699442

Date and Time Submitted: 11/18/2014 10:48:34 AM

Other Email:

Form Name: BWSC108 Comp. Res. Action Transmittal Form & Phase I

RTN: 3-2524

Location: FORMER PDM INC

Address: 175 INTERVALE ST, QUINCY, 021690000

Person Making Submittal
CITY OF QUINCY PLANNING DEPARTMENT
ROBERT A STEVENS
1305 HANCOCK ST
QUINCY, MA 021690000

**LSP** 

LSP #: 8188

LSP Name: JARROD P YODER

Person Making Certification CITY OF QUINCY PLANNING DEPARTMENT Robert A. Stevens, Jr.

Additional Forms Submitted

#### **Ancillary Document Uploaded/Mailed**

BWSC-108 Ques.B05 - Final Phase II Report - By Mail

My eDEP



#### Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

#### **BWSC125**

Release Tracking Number

3 \_ 2524

#### NOTIFICATION OF A NON-EDEP ELECTRONIC SUBMITTAL

Pursuant to 310 CMR 40.0015 (7) and 310 CMR 40.0009

A. SITE LOCATION:	
1. Site Name: Former PDM, Inc.	
2. Street Address: 175 & 189 Intervale Street	
3. City/Town: Quincy	4. ZIP Code: 02169-0000
B. THIS FORM IS BEING USED TO:	
1. Make a BWSC non-eDEP Electronic Submittal (check one and f	ill out Sections C, D, F, and G):
a. The Person Making the Submittal does not have internet a sign electronically on their behalf. (Section F must be signed by	ccess, and/or will not authorize anyone that has internet access to by the Person Making the Submittal)
b. Due to an eDEP problem, I was unable to make an eDEP s BWSC.eDEP@state.ma.us)	
Describe Problem:	
Submit supporting Documentation on CD (check one and fill out a. I did not upload the supporting documentation for the submitted than 30 mb.	· · · · · · · · · · · · · · · · · · ·
b. I was unable to upload the supporting documentation. The from BWSC.eDEP @state.ma.us.)	supporting documentation is less than 30 mb. ( Attach email
Describe Problem:	
C. BWSC TRANSMITTAL FORM SUBMITTED: (check one)	
BWSC50 Application for Special Project Designation	
2. BWSC103 Release Notification and Retraction Form	8. BWSC111 Audit Plan & Post Audit Completion     Statement
3. BWSC104 Permanent or Temporary Solution Statement	Statement  9. BWSC112 Bill of Lading
Transmittal Form	10. BWSC113 Activity and Use Limitation(AUL) Form
4. BWSC105 Immediate Response Action Transmittal Form	11. BWSC115 Downgradient Property Status Form
5. BWSC106 Release Abatement Measure Transmittal Form	12. BWSC119 URAM Transmittal Form
6. BWSC107 Tier Classification Transmittal Form	13. BWSC120 Homeowner Certification Transmittal Form
7. BWSC108 CRA Transmittal Form & Phase I CS	14. BWSC121 Notif. of Delay in Response Deadlines
D. NON-EDEP ELECTRONIC SUBMITTAL CHECKLIST:	
1. Fill out Transmittal Form specified in Section C in eDEP, error	or check, and print completed form on paper.
2. Have Person Making Submittal sign the Transmittal Form sp	ecified in Section C in ink; LSP sign in ink.
3. Scan completed signed form, and put on CD with all required requirements of 310 CMR 40.0015(7) unless the complete pack	
Submit this completed BWSC125 Notification of Non-eDEP I and a CD containing a scanned copy of the transmittal form and documents must be submitted to the regional office either by here.	d all required supporting documentation. The CD and attached



#### Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

**BWSC125** 

Release Tracking Number

3

- 2524

#### NOTIFICATION OF A NON-EDEP ELECTRONIC SUBMITTAL

Pursuant to 310 CMR 40.0015 (7) and 310 CMR 40.0009 E. SUPPORTING DOCUMENTATION ON CD CHECKLIST: 1. Complete and Submit in eDEP, Transmittal Form specified in Section C. 2. Submit CD to applicable regional office with this completed BWSC125 Notification of Non-eDEP Electronic Submittal Form along with a printed receipt of the eDEP Transaction. The CD and attached documents must be postmarked or delivered by hand the next business day. 3. Specify eDEP Transaction ID: \_\_\_\_\_699442 F. SIGNATURE OF PERSON MAKING SUBMITTAL: (required if B1 is checked) 1. First Name: \_\_\_\_\_\_ 2. Last Name: \_\_\_\_\_ 3. Title: \_\_\_\_\_\_ 4. Date: \_\_\_\_\_ (mm/dd/yyyy) 5. Signature: G. SIGNATURE OF LSP OR AUTHORIZED AGENT OF LSP: JACROD 2. Last Name: YODER 1. First Name: 3. Title: PROJECT MANAGOR / LSP 4. Date: 11 (mm/dd/yyyy) 5. Signature: Date Stamp (DEP USE ONLY:)



#### **Massachusetts Department of Environmental Protection**

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Here is the file you requested for your records.

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will be submitted to DEP.

#### **Massachusetts Department of Environmental Protection** Bureau of Waste Site Cleanup

**BWSC 108** 

Release	Tracking Number	

Kelease 1	racking Number	
3 -	2524	

#### COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

A. SITE LOCATION:				
1. Site Name:	FORMER PDM INC			
2. Street Address:	175 INTERVALE ST			
3. City/Town:	QUINCY		4. ZIP Code:	021690000
5. Check here if the d	isposal site that is the source of	the release is Tier Classifie	ed. Check the cu	rrent Tier Classification Category:
☐ a. Tier I	☐ b. Tier ID	c. Tier II		
B. THIS FORM IS BE	ING USED TO: (check all tha	at apply)		
1. Submit a <b>Phase I C</b>	Completion Statement, pursuant	to 310 CMR 40.0484.		
2. Submit a <b>Revised</b> l	Phase I Completion Statement,	pursuant to 310 CMR 40.04	184.	
3. Submit a <b>Phase II</b>	Scope of Work, pursuant to 310	CMR 40.0834.		
4. Submit an <b>interim</b> 40.0500.	Phase II Report. This report do	pes not satisfy the response	e action deadline	e requirements in 310 CMR
5. Submit a final Pha	se II Report and Completion St	atement, pursuant to 310 C	MR 40.0836.	
6. Submit a <b>Revised I</b>	Phase II Report and Completion	<b>Statement</b> , pursuant to 310	0 CMR 40.0836.	
7. Submit a <b>Phase III</b>	Remedial Action Plan and Con	npletion Statement, pursua	nt to 310 CMR 4	0.0862.
8. Submit a <b>Revised</b> I	Phase III Remedial Action Plan	and Completion Statemen	t, pursuant to 31	0 CMR 40.0862.
9. Submit a <b>Phase IV</b>	Remedy Implementation Plan,	pursuant to 310 CMR 40.08	874.	
10. Submit a <b>Modifie</b>	d Phase IV Remedy Implementa	ation Plan, pursuant to 310	CMR 40.0874.	
11. Submit an As-Bu	ilt Construction Report, pursua	ant to 310 CMR 40.0875.		
12. Submit a <b>Phase I</b>	V Status Report, pursuant to 310	0 CMR 40.0877.		
13. Submit a <b>Phase I</b>	V Completion Statement, pursua	ant to 310 CMR 40.0878 an	d 40.0879.	
Specify the outco	ome of Phase IV activities: (chec	k one)		
a. Phase V Oper or Temporary S		ing of the Comprehensive I	Remedial Action	n is necessary to achieve a Permanent
b. The requirem will be submitte		we been met. A completed	Permanent Solu	tion Statement and Report (BWSC104)

Revised: 09/03/2013 Page 1 of 5

c. The requirements of a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104)



#### Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

# COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

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Release Tracking Number
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В.	I HIS FORM IS BEING USED TO (cont.): (check all that apply)
	14. Submit a <b>Revised Phase IV Completion Statement,</b> pursuant to 310 CMR 40.0878 and 40.0879.
	15. Submit a <b>Phase V Status Report</b> , pursuant to 310 CMR 40.0892.
	16. Submit a <b>Remedial Monitoring Report.</b> (This report can only be submitted through eDEP.)
	a. Type of Report: (check one)
	b. Frequency of Submittal: (check all that apply)
	i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.
	ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.
	iii. A Remedial Monitoring Report(s) submitted every six months, concurrent with a Status Report.
	iv. A Remedial Monitoring Report(s) submitted annually, concurrent with a Status Report.
	c. Status of Site: (check one)
	d. Number of Remedial Systems and/or Monitoring Programs:
	A separate BWSC108A, CRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.
	17. Submit a <b>Remedy Operation Status</b> , pursuant to 310 CMR 40.0893.
	18. Submit a <b>Status Report to maintain a Remedy Operation Status</b> , pursuant to 310 CMR 40.0893(2).
	19. Submit a <b>Transfer and/or a Modification of Persons Maintaining a Remedy Operation Status (ROS)</b> , pursuant to 310 CMR 40.0893(5) (check one, or both, if applicable).
	a. Submit a Transfer of Persons Maintaining an ROS (the transferee should be the person listed in Section D, "Person Undertaking Response Actions").
	<ul><li>□ b. Submit a Modification of Persons Maintaining an ROS (the primary representative should be the person listed in Section D, "Person Undertaking Response Actions").</li></ul>
	c. Number of Persons Maintaining an ROS not including the primary representative:
	20. Submit a <b>Termination of a Remedy Operation Status</b> , pursuant to 310 CMR 40.0893(6).(check one)
	a. Submit a notice indicating ROS performance standards have not been met. A plan and timetable pursuant to 310 CMR 40.0893(6) (b) for resuming the ROS are attached.
	☐ b. Submit a notice of Termination of ROS.
	21. Submit a <b>Phase V Completion Statement</b> , pursuant to 310 CMR 40.0894.
	Specify the outcome of Phase V activities: (check one)
	a. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.
	b. The requirements for a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.
	22. Submit a <b>Revised Phase V Completion Statement</b> , pursuant to 310 CMR 40.0894.
	23. Submit a <b>Temporary Solution Status Report</b> , pursuant to 310 CMR 40.0898.
	24. Submit a <b>Plan for the Application of Remedial Additives</b> near a sensitive receptor, pursuant to 310 CMR 40.0046(3).
	a. Status of Site: (check one)
	i. Phase IV iii. Phase V iii. Remedy Operation Status iv. Temporary Solution



Revised: 09/03/2013

# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

# COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

**BWSC 108** 

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#### C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B indicates that a Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement and/or a Termination of a Remedy Operation Status is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that a Phase II Scope of Work or a Phase IV Remedy Implementation Plan is being submitted, the response action (s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that an As-Built Construction Report, a Remedy Operation Status, a Phase IV, Phase V or Temporary Solution Status Report, a Status Report to Maintain a Remedy Operation Status, a Transfer or Modification of Persons Maintaining a Remedy Operation Status and/or a Remedial Monitoring Report is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP#:	8188		**	
2. First Name:	JARROD P		3. Last Name:	YODER
4. Telephone:	978-557-8150	5. Ext.:	6. Email:	jyoder@woodardcurran.com
7. Signature:	ger v	fr		
8. Date:	MISTY		9. LSP Stamp:	X
	(mm/dd/yyyy)			JARROD P. YODER No. 8188  PEGISTERE  SITE PROFESSION

# No.

### Massachusetts Department of Environmental Protection

Bureau of Waste Site Cleanup

# COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

<b>BWSC 108</b>	BV	VSC	108
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Release Tracking Number
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D. PE	ERSON UN	DERTA	KING RESPO	ONSE ACTIONS:			
1. Che	eck all that a	ipply:	a. change	in contact name	□ b. ch	ange of address	c. change in the person undertaking response actions
2. Nar	ne of Organ	ization:	CITYO	F QUINCY PLANNING DEI	PARTMENT	•	
3. Coi	ntact First N	ame:	ROBERT A			4. Last Name:	STEVENS
5. Stre	eet:	1305 HANC	COCKST			6. Title:	PROJECT COORDINATOR / URBAN PLANNER
7. City	y/Town:	QUINCY		8. State:	MA		9. ZIP Code: 021690000
10. Te	elephone:	617-212-	6135	11. Ext:		12. Email:	rstevens@quincyma.gov
E. RE	ELATIONS	<b>SHIP ТО</b>	SITE OF PE	RSON UNDERTAKI	ING RES	PONSE ACTIO	NS: Check here to change relationship
	1. RP or PR	ep [	a. Owner	☐ b. Operator	□ c.	Generator	d. Transporter
			e. Other RP or I	PRP Specify:			
~	2. Fiducia	ry, Secure	d Lender or M	unicipality with Exemp	t Status (a	s defined by M.G.	.L. c. 21E, s. 2)
	3. Agency	or Public	Utility on a Ri	ght of Way (as defined	by M.G.L	. c. 21E, s. 5(j))	
	4. Any Ot	ther Perso	n Undertaking	Response Actions	Specify	Relationship:	
F. RE	_			SUBMITTALS:			
							were) subject to any order(s), permit(s) and/or nent identifying the applicable provisions thereof.
<b>~</b>	2. Check h Phase Rep			ief Municipal Officer a	and the Lo	ocal Board of Hea	Ith have been notified of the submittal of any
			tify that the Ch Action Plan.	ief Municipal Officer ε	and the Lo	cal Board of Heal	th have been notified of the availability of a
			tify that the Ch	•	and the Lo	cal Board of Heal	Ith have been notified of the availability of a
				ief Municipal Officer ε temedial Action.	and the Lo	cal Board of Heal	th have been notified of any field work involving
				nedy Operation Status ( son making this submit			()), check here to certify that a statement detailing
				Remedy Operation Sta or each new person mal			93(5)), check here to certify that a statement ed.
			non-updatable C.eDEP@state		on this fo	rm is incorrect, e.	g. Release Address/Location Aid. Send
<b>~</b>	9. Check h	nere to cer	tify that the LS	P Opinion containing	the materi	al facts, data, and	other information is attached.

Revised: 09/03/2013 Page 4 of 5



#### **Massachusetts Department of Environmental Protection** Bureau of Waste Site Cleanup

**BWSC 108** 

# COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Releas	se Ti	racking Number
3	-	2524

G. CER	TIFICATION OF PER	SON UNDERTAKING RESPO	ONSE ACTIONS	3:
1. I,	Robert Stevens	, attest	under the pains a	and penalties of perjury (i) that I have personally
form, (ii containe this atte am/is av	) that, based on my inquired in this submittal is, to the station on behalf of the en	y of those individuals immediately ne best of my knowledge and belie ntity legally responsible for this su ant penalties, including, but not li	responsible for of, true, accurate a abmittal. I/the per	any and all documents accompanying this transmittal obtaining the information, the material information and complete, and (iii) that I am fully authorized to make rson or entity on whose behalf this submittal is made afines and imprisonment, for willfully submitting false,
that I an	n fully authorized to act o	n behalf of all persons performing ndence from MassDEP with respe	response actions	OS), I attest under the pains and penalties of perjury under the ROS as stated in 310 CMR 40.0893(5)(d) to e of response actions under the ROS, and to receive a
perform	ing response actions unde	eived by the Primary Representati or the ROS, and I am aware that the abmitting false, inaccurate or incon	ere are significan	P shall be deemed received by all the persons t penalties, including, but not limited to, possible fines 1.
2. By:	Robert	Strong A. Signature	3. Title:	PROJECT COORDINATOR / URBAN PLANNER
4. For:		NNING DEPARTMENT n or entity recorded in Section D)	5. Date:	11/12/2014 (mm/dd/yyyy)
┌ 6. C	Check here if the address of	of the person providing certification	n is different from	n address recorded in Section D.
7. Stree	t:			
8. City/	Town:	9. Stat	e:	10. ZIP Code:
11. Tele	ephone:	12. Ext.:	13. Email:	
SUB	ILLABLE YEAR FO SECTIONS OF THIS MIT AN INCOMPL	OR THIS DISPOSAL SITE. FORM OR DEP MAY RE ETE FORM, YOU MAY BI	YOU MUST I TURN THE D	SURANCE FEE OF UP TO \$10,000 PER LEGIBLY COMPLETE ALL RELEVANT OCUMENT AS INCOMPLETE, IF YOU D FOR MISSING A REQUIRED DEADLINE.
Date	e Stamp (DEP USE ONLY:	)		



# PHASE II COMPREHENSIVE SITE ASSESSMENT REPORT

175 & 189 INTERVALE STREET QUINCY, MASSACHUSETTS

MASSDEP RTN 3-2524

woodardcurran.com
commitment & integrity drive results

226332 City of Quincy

October 2014



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#### **APPENDICES**

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#### 1. INTRODUCTION

At the request of the City of Quincy, Massachusetts (the City), Woodard & Curran prepared this Phase II Comprehensive Site Assessment (CSA) Report (hereto referred to as "this Report") to summarize existing environmental conditions at the property located at 175 & 189 Intervale Street, including the "paper street" (herein referred to as the Property), in Quincy, Massachusetts. The objectives of this Phase II CSA were to collect, develop, and evaluate the information necessary to define and evaluate (1) the source, nature, extent, and potential impacts of the release of oil and/or hazardous material (OHM); (2) the risk of harm posed by the disposal site to human health, safety, public welfare, and the environment; and (3) the need to conduct remedial actions at the Property in accordance with the Massachusetts Contingency Plan (MCP).

The Property was historically used as a metal scrapping and auto salvage yard since the 1940's. Multiple releases have been identified at the Property but were initially reported to the Massachusetts Department of Environmental Protection (MassDEP) after a fire associated with a petroleum drum occurred inside the building. MassDEP assigned Release Tracking Number (RTN) 3-2524 for the release associated with the petroleum drum. The release associated with RTN 3-2524 was previously classified as a default Tier 1D disposal site indicating that the responsible party (PDM Metals, Inc.) failed to provide the required MCP submittals to MassDEP by the specified deadlines. MassDEP sent a notice of non-compliance to the potentially responsible party (PRP), Henry P. Gregoire, the former Property owner, in January 2008, informing him of the required actions as well as potential legal and monetary ramifications if regulatory compliance was not achieved. However, no remedial actions were completed by the PRP following the issuance of the RTN.

In 2009, the property was seized by the City via tax foreclosure. The City acquired the Property due to non-payment of taxes, and meets all the requirements of M.G.L. 21E, Section 2 for an exempt municipality. As an exempt municipality, the City is voluntarily working to achieve a Temporary or Permanent Solution for the releases at the Property in compliance with the MCP. The City is the current property owner and has voluntarily initiated response actions using the Massachusetts Brownfields Program.

This report was submitted electronically via eDEP using Bureau of Waste Site Cleanup (BWSC) form BWSC-108. The City municipal officials and other property owners within the disposal site boundary were notified of this submittal as required by the public notification provisions of the MCP. Copies of notification letters are included in Appendix A.



#### 2. BACKGROUND

#### 2.1 SITE LOCATION AND DESCRIPTION

The releases of OHM at the Property were located at 175 & 189 Intervale Street in Quincy, Massachusetts. The parcels are identified on the City's Assessor's Online Database as Map 3098 Block 20 Lot 25 and Map 3098 Block 25 Lot 27 respectively. The Property includes the portion of Intervale Street abutting the parcels to the east, which is currently not in use and is described as "paper street" in the property descriptions and records. The Property is comprised of approximately 37,500 square feet (0.86 acres).

The Property is located at 4,677,686 meters North and 333,744 meters East according to NAD83 Universal Transverse Mercator (UTM), which is also expressed as 42° 14′ 7″ North latitude and -71° 0′ 53″ East longitude. Figure 1 provides a Site Locus Map, depicting the site location with 500-foot and 0.5-mile radii around it. Figure 2-1 and 2-2 provide the Site Plan, which includes details on the Site.

#### 2.2 PROPERTY AND SURROUNDING LAND USE

The Property was historically improved with a 1-story metal-sided warehouse-style building (constructed in 1943), a concrete structure that contained an aboveground storage tank, and a concrete, masonry unit (CMU) constructed building between 1969 and 1978. Major Property improvements were demolished in August/September 2013 and the Property is presently unpaved, vacant, and secured by a perimeter chain-link fence. A concrete wall remains at the southern extent of the Property traversing generally east to west across two-thirds of the Property. The Property was serviced by public water but was not connected to the public sewer system. A cess pool was identified in municipal records and was formerly located in the vicinity of monitoring well MW-3R. An unknown, underground structure was identified inside of the former building near the southeastern wall and was approximately 10 feet deep. This structure was later determined to be a former lift. A scale was also located on the exterior wall of the building near the gated entrance to the Property.

The Property was historically used as a metal scrapping and auto salvage yard since the 1940's. Based on information provided in historical reports, the former main building was utilized for two separate operations. The southern portion of the former building was used to remove vehicle tires from their rims and the tires were subsequently stored on site. In the northern portion of the former building, tar-like paint was applied to manhole covers as part of a recoating process. PDM Metals, Inc. (PDM, the former property owner) also reportedly "cut and scrapped" old electrical transformers inside and outside of the former building.

The Property is located at the dead end of a public way within a commercially and residentially developed area of Quincy. Abutting the Property to the north and northwest are landscaping business (Groleau's Landscape Contractors; 40 Vernon Street and TLC Supply, Inc.; 36 Vernon Street) which have occupied buildings within 30-feet of the Property. Beyond those properties are additional commercial areas. Immediately east, northeast, south, and west are parking lots associated with the Crown Colony Office Park. Residences are located within 500 feet of the Property to the northwest, north, and northeast. A daycare is located approximately 700 feet west-southwest of the Property.

No institutions (hospitals, health care facilities, orphanages, nursing homes, convalescent homes, educational facilities, or correctional facilities that provide in part or in whole overnight housing) were identified within 500 feet of the Property during site reconnaissance activities. However, it was noted that various private medical practices are housed in the Crown Colony Office Park buildings located approximately 40 feet and 150 feet from the southern extent of the Property. Neither of which are known to provide overnight housing.

Abutting properties are depicted on the Site Plan provided as Figure 2-1 and 2-2.



#### 2.3 ENVIRONMENTAL SETTING AND NATURAL RESOURCES

According to the Massachusetts Geographical Information System, the Property is not located within 500 feet of a Protected Open Space, a Zone II groundwater resource area, a Medium- or High-Yield Potentially Productive Aquifer, an Interim Wellhead Protection Area (IWPA), or a Surface Water Supply Zone A. There are no public or private wells located on the Property or within 500 feet of the Property. Areas of Critical Environmental Concern (ACECs), Sole Source Aquifers, or Natural Heritage & Endangered Species Program (NHESP) Habitats, Certified Vernal Pools are not located within 500 feet of the Property. The closest environmental receptor is a small wetland complex and manmade stormwater sedimentation basin located approximately 300 feet to the south of the Property. The Town Brook and related wetlands are located approximately 0.25 miles east of the Property and Town River Bay (Atlantic Ocean) is located approximately 1.8 miles northeast of the Property. The MassDEP Phase 1 Site Assessment Map is included as Appendix B.

#### 2.4 ON-SITE WORKERS AND RESIDENTIAL POPULATION

The Property is located at the end of a dead-end road on Intervale Street and is protected from trespassers by a locked chain-link fence. The Property is currently vacant and the former building structures were demolished in August/September 2013. As such, there are no permanent on-site workers or residential populations located within the boundaries of the Property and access to the area is restricted.

Based on the 2010 Census data from the United States Census Bureau, the residential population within a 0.5-mile radius of the Property is conservatively estimated to be 5,300 (United States Census Bureau, 2010).

#### 2.5 RELEASE HISTORY

Information available from the MassDEP's Waste Site/Reportable Releases Lookup database (<a href="http://db.state.ma.us/dep/cleanup/sites/search.asp">http://db.state.ma.us/dep/cleanup/sites/search.asp</a>) was used to identify releases at the Property. This database search was supplemented with publicly available environmental database information compiled by Environmental Data Resources, Inc. for the Phase I ISI (EDR, 2013). Reviews of these sources indicated that only one RTN has been assigned to the releases at the Property. A summary of the regulatory history of this release is detailed below.

On March 12, 1986, at approximately 5:00 p.m., the Quincy Fire Department responded to a fire involving a 55-gallon drum at the Property. During the initial attempt to control the fire with water, the contents of the drum were released to the environment. A foam truck was later brought in to extinguish the flames. The Quincy Fire Department notified MassDEP of the incident. On March 13, 1986, David Chapman, a Senior Sanitary Engineer with MassDEP (formerly DEQE), investigated the release. Mr. Chapman noted that the unmarked 55-gallon drum that caught fire had a solvent odor. Following the incident investigation, it was reportedly determined that hazardous materials, specifically waste oil and waste solvent, may have been stored improperly on the Property and that the soil and/or groundwater may be contaminated with OHM. The majority of containers observed on the Property were suspected to contain materials associated with the daily operations being conducted at the Property.

In April 1989, on behalf of the former site owner, Henry Gregoire of PDM Metals, Consulting Engineers and Environmental Scientists, Inc. (CEES) completed an ASTM Phase I/II ESA to evaluate whether the materials stored at the Property have resulted in conditions, which would constitute a disposal site, and if further remedial response actions were necessary. CEES completed a subsurface investigation, including the collection of soil and groundwater samples for laboratory analysis. Based on information gathered during the Phase I and Phase II activities, CEES concluded that OHM constituents were present in soil and groundwater at the Property. Surficial soils on the Property were reportedly impacted from the continued and prolonged mishandling of hazardous materials during daily operations. CEES recommended that all storage and scraping of automobiles be ceased and that the MassDEP be notified of the conditions at the Property.

MassDEP was notified of a Potential Release or Threat of Release on July 14, 1989. MassDEP officially assigned Release Tracking Number 3-2524 to the Property in 1989, with a Release Notification date of October 15, 1989. The



entire release history of the Site is unknown as there were most likely additional unreported releases related to daily operations which occurred prior to and following the RTN assignment.

The Property is listed in an EDR database report as a Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site. This designation is reserved for sites that are either proposed to be or are on the National Priorities List (NPL). Based on the results of the USEPA investigation described in Section 4.2, the Property was not placed on the NPL. The Property is also identified in the EDR database report as a state hazardous waste release site (SHWS database).

#### 2.6 OTHER RELEASE TRACKING NUMBERS

During Phase II CSA activities, soil samples were collected from off-Property locations to better define the nature and extent of impacts from historical PDM, Inc. activities. Two off-property locations (40 Vernon Street and 500 Congress Street) were approached by the City to collect samples under the Massachusetts Brownfields program. Off-Property samples were warranted based upon elevated concentrations of PCBs and metals along the Property fence line. 120-day reporting conditions were identified at 40 Vernon Street and 500 Congress Street, during soil sampling activities completed in November 2013 and May 2014, respectively. The MassDEP was notified of the 120-day reporting conditions on May 20, 2014 (40 Vernon Street; RTN 3-32188) and September 18, 2014 (500 Congress Street; RTN 3-32443). During soil sampling activities in July 2014, an Imminent Hazard (IH) condition was identified on the 500 Congress Street property. The Trustees of the Medical Office Condominiums reported the IH condition to MassDEP on September 24, 2014 and MassDEP issued RTN 3-32452. The Trustees hired GZA to respond to the IH condition, which consisted of installing a temporary fence and plastic cover around the impacted area.



#### 3. PROPERTY HISTORY

#### 3.1 OWNER/OPERATOR HISTORY

Based upon historical records obtained and reviewed during the completion of the Phase I ISI, Henry P. Gregoire, a trustee of the Gregoire Family Trust, purchased the property on June 1, 1971. Henry P. Gregoire operated PDM Metals, Inc. at the Intervale properties and was the Property owner at the time of the documented releases associated with RTN 3-2524. The Property has been zoned for industrial use since 1943. Municipal files pertaining to the "junkyard" activities were dated as recent as January 9, 1997. However, it is uncertain when salvaging and scrapping operations ceased at the Site. As of 1995, Henry Gregoire owed the city approximately \$662,000 in unpaid taxes dating back to 1988. The property was subsequently seized by the City via tax foreclosure in 2009 and the City is the current property owner.

#### 3.2 PETROLEUM USE HISTORY

The Property was historically used for auto salvage, metal scrapping and recoating manholes with a tar-like paint. Waste oil and/or other petroleum constituents were presumed to be generated during daily activities. Evidence of such was noted on May 29, 2012, when representatives from MassDEP conducted a reconnaissance of the Property. During the reconnaissance activities, various types of OHM were observed including 55-gallon drums with unknown contents, multiple above-ground storage tanks (AST), which did not appear to be properly decommissioned, empty propane tanks, and containers with tar sealant. In response to the conditions at the Property, the United States Environmental Protection Agency's (USEPA) Superfund Technical Assessment Response Team (START) completed a Removal Program Site Investigation in July 2012.

Investigation activities included the documentation of the quantity and extent of potential hazardous materials. START personnel noted two 55-gallon drums, four 30-gallon drums, approximately 18, 5-gallon containers, approximately 50 gas cylinders and two ASTs. The majority of containers were suspected to contain grease, waste oil, or tar. Additional drums, gas cans, and 5-gallon motor oil containers were also noted in the former building. During the initial reconnaissance, several areas of stained soil were observed along the northwestern perimeter of the Property. Dead trees and stressed vegetation were also noted in this general area. Following initial activities, the two 55-gallon drums were screened with the PID and sampled for OHM. It was determined that one drum contained used antifreeze and the other drum contained used motor oil.

Between December 20, 2012 and January 31, 2013, OHM and miscellaneous containers were collected and removed from the Property by New England Disposal Technologies, Inc. (NEDT). These materials were located throughout the Property on the ground surface and inside of the former derelict building. OHM identified during these activities included waste oils, lead-acid batteries, tar-like material, flammable aerosols, propane, petroleum-based grease, and universal wastes (e.g., computers, monitors, etc.).

Additionally, in early July 2013, Woodard & Curran identified an additional approximately 4,000-gallon AST that was partially full with No.2 fuel oil. This AST was likely used to contain fuel oil for the purpose of heating the former building. Prior to decommissioning the AST, approximately 500 gallons of No.2 fuel oil was removed from the tank (485 gallons removed via vactor truck and approximately 30 gallons of oil sludge containerized in a 55-gallon drum) and the oil and sludge was transported to Cyn Oil Corporation of Stoughton, Massachusetts for disposal. Upon completion, the AST was inspected by the Quincy Fire Department, and the tank was approved for removal and recycling by the demolition contractor.

The history of petroleum use on site was determined based on observed site conditions and historic accounts of site activities based upon discussions with neighbors. The exact details of historic petroleum use on site is not known. Currently, ASTs, underground storage tanks (USTs), and other small containers of gasoline, heating oil, and/or diesel fuel are not present at the Property.



#### 3.3 COMPLIANCE HISTORY

Following the completion of the ASTM Phase I/II ESA of 1989, CEES completed an MCP Waiver Application Form on behalf of the former Property owner, Henry Gregoire. The waiver would allow an environmental consultant to proceed with corrective activities without obtaining expressed or written consent from MassDEP at every phase of the remedial process. MassDEP received the Waiver Application on September 19, 1989 and John Fitzgerald, the former MassDEP Section Chief, approved the form on January 25, 1990. However, it is unclear what actions were taken by the Potentially Responsible Parties (PRP).

After a prolonged period of inactivity, on January 10, 2008, the MassDEP issued a letter entitled "Important Notice" to inform the PRP that work was needed to comply with the MCP. According to the letter, the initial step for the environmental assessment of the Property, Tier Classification, had not been completed as required. The letter provided the opportunity to re-establish compliance by performing the required Tier Classification by June 30, 2008. However, no remedial actions were completed by the former Property owner.

Since the City assumed control of the Property in 2009, the City has worked with MassDEP and USEPA to evaluate conditions at the Property and install a fence to prevent access to the Property. In December 2012, Woodard & Curran coordinated the assessment and removal of surface hazardous materials from the Property. In 2013, Woodard & Curran coordinated a building materials evaluation, observed the demolition of the building and management of building materials, coordinated Release Abatement Measures (RAM) for the excavation and off-site disposal of polychlorinated biphenyl (PCB)-impacted soils and concrete foundation materials, and collected surficial soil samples. On November 27, 2013, Woodard & Curran submitted a Phase I Initial Site Investigation and Tier II classification for the releases at the Property.

#### 3.4 AREAS OF INTEREST

To effectively and efficiently characterize releases at the Property during Phase II CSA activities, Woodard & Curran designated three Areas of Interest (AOIs) based on historical uses of the Property as determined by aerial photographs and interviews with abutting property owners, the presence of storage tanks, and visual indications such as stained soils (AOI is not a regulatory classification or identification). The AOIs are depicted on Figures 2-1 and 2-2 and are summarized as follows:

- Sump Source Area (AOI #1) This AOI centered around the former sump source area identified below the
  former building and that subject to RAM activities conducted in 2013. As described above, historic activities
  were conducted within the former building in the vicinity of the sump area.
- Central Yard Area (AOI #2) Based upon historical aerial photographs, discussions with abutting property
  owners, and visual reconnaissance activities, this area was designated because of the storage of hazardous
  materials, stained surface materials identified in aerial photographs, and proximity to the fire that occurred
  1986.
- Southern Yard Area (AOI #3) Based upon historical aerial photographs, discussions with abutting property
  owners, visual reconnaissance activities, and hazardous waste removal operations in December 2012 and
  January 2013, hazardous materials were stored in ASTs and transformers were cut and scrapped in this
  area. Surficial stained soils were also observed in historical aerial photographs.

The locations of the three AOIs are further supported by the characterization data collected to date from shallow and subsurface soils across the Property; however, it is important to note, that impacts to soils have been identified outside the limits of the AOIs as shown on the site plan. The presence of impacts beyond the limits of the AOIs is indicative of the spread of constituents of potential concern (COPCs) across the Property from previous site operations as well as the presence of historical fill materials across the Property.



#### 4. PREVIOUS INVESTIGATIONS AND REMEDIATION ACTIVITIES

Previous subsurface investigations, which were completed at the Property in 1989, July 2012 and April 2013 by previous consultants, USEPA and MassDEP, are documented in detail in the Phase I ISI submitted by Woodard & Curran on November 27, 2013. The investigations were completed to assess soil and groundwater conditions at the Property following the notification of the release associated with RTN 3-2524. The investigations included the completion of soil borings and the installation of groundwater monitoring wells.

#### 4.1 INVESTIGATION COMPLETED BY CEES (1989)

As documented in files maintained in MassDEP's Waste Site/Reportable Releases Lookup database, CEES performed an ASTM Phase I ESA and limited subsurface investigation at the Property from April 10 to April 24, 1989. The assessment was conducted to evaluate whether the materials stored and historical operations at the Property have resulted in conditions, which would constitute a disposal site, and if further remedial response actions were necessary.

To evaluate subsurface conditions, CEES installed four groundwater monitoring wells (MW-1 through MW-4). During well installation, soils were visually characterized and screened with an HNU photoionization detector with a benzene calibration factor. The maximum soil headspace reading was 23 parts per million (ppm) from an interval of approximately 5 to 6 feet below ground surface (bgs) at location MW-2, located near the northwestern perimeter of the Property. Composite soil samples were collected from two of the four monitoring well locations. Soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) and Polychlorinated Biphenyls (PCBs). The maximum TPH value detected was 23,000 milligrams per kilogram (mg/Kg) and the maximum PCB detection was 2 mg/Kg. However, boring logs and lab reports indicate that samples were composited over large intervals and between locations. This historic soil data is therefore not considered representative of conditions in an identifiable location, and will not be used for the objectives of this CSA.

Groundwater samples were collected from monitoring wells MW-1 through MW-4 and analyzed for volatile organic compounds (VOCs). Due to the fact that the samples were collected and analyzed over 25 years ago, groundwater data from the CEES investigation is not considered representative of current conditions and will not be used for the objectives of this CSA. A copy of the Site Report Relative to Hazardous Material (May 1, 2009 by CEES) was included in the Phase I ISI report submitted in November 2013. Groundwater analytical data collected by CEES are included in data tables presented in Section 5.4 to allow data comparison across time.

#### 4.2 INVESTIGATION COMPLETED BY USEPA (2012)

On May 29, 2012, representatives from MassDEP conducted a reconnaissance of the Property. During reconnaissance activities, various types of OHM were observed including 55-gallon drums with unknown contents, multiple ASTs, which did not appear to be properly decommissioned, empty propane tanks, and containers with tar sealant. In response to the conditions noted at the Property by MassDEP, USEPA's START Team completed a Removal Program Site Investigation.

On July 5, 2012, START personnel collected surficial soil samples (0-3 inches) from ten locations. Each soil sample, including one field duplicate, was submitted to the USEPA Office of Environmental Measurement and Evaluation to be analyzed for PCBs and total metals. Two PCB Aroclors were detected. Aroclor-1254 was detected at a maximum concentration of 6 mg/Kg and Aroclor-1260 was detected at a maximum value of 4.9 mg/Kg. Four sample locations resulted in PCBs exceeding the MCP Method 1 Risk Characterization standard. Sampling results also indicated the presence of 18 different metals at concentrations greater than the laboratory reporting limits. Seven of the 18 metals (arsenic, barium, cadmium, chromium, lead, nickel, and zinc) were detected in surficial soil samples above their respective MCP Method 1 Risk Characterization standards.



Sampling locations are depicted on Figure 2-1 and the analytical laboratory results are included in data tables presented in Section 5.2. A copy of the Removal Program Preliminary Assessment/Site Investigation Report (July 5, 2012 by Weston Solutions, Inc.) was included in the Phase I ISI report submitted in November 2013.

#### 4.3 INVESTIGATION COMPLETED BY WATERMARK (APRIL 2013)

On April 11, 2013, supplemental subsurface investigations were completed by Watermark under the direction of MassDEP. Four replacement monitoring wells (MW-1R through MW-4R) were installed to a depth of approximately 14-16 feet bgs because monitoring wells installed by CEES in 1989 could not be located in 2012 during the Removal Program Site Investigation and were assumed to be destroyed under unknown circumstances. The 2-inch diameter replacement monitoring wells were installed using a Geoprobe with direct push technology and soil samples were collected with 4-foot acetate sleeves. Soil obtained in the sleeves was characterized and screened with a PID via jar headspace methods. PID screening values ranged from 0.2 ppm to 42.8 ppm. The maximum PID reading was collected at an approximate interval of 4 to 5 feet bgs at location MW-4R located near AOI #3.

Replacement groundwater monitoring wells were completed with 2-inch, schedule 40 PVC with a screen slot size of 0.01-inch and solid riser pipe near the surface. A sand pack was placed in the annular space between the borehole and the well to a height of two feet above the screen. A one-foot thick bentonite seal was placed above the sand pack and sand was extended to the surface. These wells were completed with flush-mounted road boxes. Following installation, wells were developed using a peristaltic pump to improve the connection of the wells with the aquifer and remove fine sediments that accumulated in the well during installation.

Groundwater samples were collected on April 23, 2013 from the four replacement monitoring wells and analyzed for VOCs via USEPA Method 8260, extractable petroleum and volatile petroleum hydrocarbons (EPH and VPH) via MassDEP Methods, and dissolved Compendium of Analytical Methods (CAM) metals. Groundwater laboratory results are included in data tables presented in Section 5.4. A copy of the Limited Soil and Groundwater Assessment Report prepared by Watermark was included in the Phase 1 ISI report submitted in November 2013.

#### 4.4 SUMMARY OF RAM ACTIVITIES

On August 20, 2013, demolition activities commenced to remove the vacant building at the Property. During demolition activities, Woodard & Curran identified structures below and adjacent to the former building. These structures were later identified as a cess pool, a lift, and a scale. The cess pool was reportedly a gravel trench that was connected via piping from the building. These structures were removed (except for the gravel trench part of the cess pool) during demolition activities and adverse impacts to surrounding soils were not identified through visual observations or subsequent soil analytical testing as part of the site wide investigation. However, apparent petroleum impacts were identified on and around a former sump near the northern wall of the former building (AOI #1). Upon removal of the foundation surrounding the sump, a small area of oil-impacted soil and a small portion of the building foundation was identified as petroleum impacted as well. To evaluate the area, Woodard & Curran collected a soil sample for disposal parameters including EPH via MassDEP Methods and PCBs via USEPA Method 8082. Analytical results indicated that elevated concentrations of PCBs (greater than 50 mg/kg) were identified in the soil sample.

Following the receipt and evaluation of the analytical results, the decision was made by the City to manage all excavated soils as ≥ 50 mg/kg PCB remediation wastes following the procedures set forth in 40 CFR 761.61(b) Performance-Based Disposal, Subpart O – Verification Sampling, and 40 CFR 761.79 Decontamination. A RAM Plan dated August 30, 2013 was subsequently submitted with the objective of properly managing the petroleum and PCB-impacted soil and a small portion of the building foundation to facilitate the building demolition and in preparation for Phase II CSA activities. The RAM Plan was also submitted with the secondary objective of reducing the liability posed by leaving the building materials and soil in place until a PCB Remediation plan and/or Phase IV Remedy Implementation Plan can be prepared and approved by the appropriate regulatory authority.



On September 3, 2013, soil was excavated to an approximate depth of 7 feet bgs and stored in a lined roll-off container. Based upon visual examination of the soil at depths greater than 7 feet bgs, it was determined by Woodard & Curran that continued excavation was not feasible under the current RAM Plan. Ten post-excavation verification samples, including one duplicate sample, were collected from the sidewalls (~3 feet bgs) and bottom (~ 7 feet bgs) of the excavated area. Samples were headspace screened with a PID equipped with an 11.7 eV lamp and a benzene correction factor. Samples were submitted under chain of custody to Test America Laboratories (Test America) of Westfield, Massachusetts for PCB analyses via USEPA Method 8082 using the soxhlet extraction procedure. Analytical results indicated that the lateral and vertical extents of the PCB and oil-impacted soil were not reached during RAM activities. Sidewall sample results for total PCBs ranged from 1.53 mg/kg to 25.3 mg/kg, with the maximum result collected from location WCSS-2 at the northern sidewall. Sample WCSS-10, collected at the base of the excavated area, which is approximately 3 feet below the surrounding ground surface (for a total of 7 feet bgs), had a resulting total PCB value of 92.2 mg/kg. Post-excavation verification sampling analytical data are summarized on Tables 1-1 and 1-2. The location of the RAM excavation area and the verification samples are depicted on Figure 3.

Soil samples were collected from the excavated soil inside of the roll-off container for disposal characterization. Results indicated elevated concentrations of lead and elevated reporting limits for pesticides (chlordane and hexachlorobenzene). According to the laboratory, the pesticide sample could not be reanalyzed to achieve a lower reporting limit to meet the regulatory threshold for evaluating the need to run a Toxic Characteristic Leaching Procedure (TCLP). Therefore, the TCLP procedure was used to evaluate whether the lead and pesticides (even though the pesticide concentrations were below laboratory reporting limits) would be identified as a characteristic (D-listed) waste. The results of the TCLP analyses indicated that lead (22 milligrams per liter; mg/L) and chlordane (0.05 mg/L) failed the analysis and would be considered a RCRA Characteristic Waste in addition to being identified as a TSCA PCB Remediation Waste.

The RAM was modified on October 23, 2013 to include a stabilization/chemical fixation pilot test. Excavated materials were stabilized with a mixture of Portland cement and water based on the ratio established during a bench-scale study. The mixture was applied to the soil and concrete foundation materials inside of the existing roll-off container and mixed thoroughly with an excavator. The final mixture consisted of approximately 8% Portland cement by volume. Post-stabilization verification sampling data indicated that TCLP lead and TCLP chlordane were not detected above the RCRA regulatory concentrations. The bench scale test and pilot test were described in greater detail in the RAM Plan Modification dated October 23, 2013 and the RAM Completion report dated December 24, 2013.



#### 5. PHASE II COMPREHENSIVE SITE ASSESSMENT ACTIVITIES

This section describes investigation activities completed by Woodard & Curran between September 2013 and July 2014 in support of Phase II CSA activities. The objectives of these activities were to obtain sufficient data to delineate the nature and extent of OHM that has come to be located at the Property and to conduct an evaluation of the potential risk of harm to health, safety, public welfare, and the environment from the COPCs identified in media at the Property. These investigations combined with off property investigations completed at 500 Congress Street and 40 Vernon Street are used in support of the Conceptual Site Model (CSM) presented in Section 10 of this Report.

#### 5.1 SUMMARY OF SOIL SAMPLING ACTIVITIES

Woodard & Curran personnel conducted soil investigation activities over four sampling events between September 2013 and July 2014. A total of 313 soil samples were collected on the Property (143 from 0 to 3 feet bgs and 170 from greater than 3 feet bgs). A total of 73 soil samples were also collected over multiple depth intervals from off property locations at 40 Vernon Street (Groleau's Landscape Contractors; 3 sample locations) and 500 Congress Street (medical office condominiums; 24 sample locations). During soil investigation activities, eleven borings were completed as groundwater monitoring wells as described in Section 5.4 below. The locations of the soil borings are depicted on Figure 2-1 and the locations of the groundwater monitoring wells are depicted on Figure 2-2.

Soils collected at each location were photographed, visually classified and screened using a PID and jar headspace methods. The PID was equipped with an 11.7 eV lamp and calibrated for a benzene correction factor. A prescriptive suite of analyses was predetermined for each sample location depending on the sampling objective (i.e. replicate historical data, delineate surficial staining, and define horizontal and vertical extent of impacts). Soil samples were analyzed for one or more of the following analyses: PCBs via USEPA Method 8082 with soxhlet extraction procedure, MCP 14 metals via MassDEP Methods, VOCs via USEPA Method 8260, VPH fractions via MassDEP Methods, EPH and target analytes via MassDEP Methods, total chromium via MassDEP Methods, and/or Hexavalent Chromium via USEPA method 7196A. VPH target analytes were not submitted for laboratory analyses because these COPCs are included on the VOC 8260 list. During the sampling events, non-disposable tools and equipment were decontaminated with a clean water rinse, detergent scrub, and a final rinse with a d-Limonene solution and wiped clean of any residual particles. Following collection, soil samples were placed on ice and transferred to the laboratory under standard chain of custody practices.

A summary of the activities completed during each event is as follows:

- September 16, 2013 This sampling event consisted of collecting 38 soil samples (WCSS-11 through WCSS-48) from a depth of 0 to 4 inches bgs throughout the Property. Sample locations were determined based on the results of previous investigations, aerial photographs, and field observations such as surficial staining. PID screening results ranged from below instrument detection limits to 3.4 ppm, with the majority of measurements being less than 0.5 ppm. Anthropogenic debris such as glass, plastic, porcelain, metal fragments, concrete, brick, coal, or wood were observed in surficial materials at 26 of 38 sampling locations. During this event, soil samples were not collected from within the footprint of the former building.
- September 25 and 26, 2013 This sampling event consisted of the advancement of eleven soil borings (WCSB-1 through WCSB-11) completed as ground water monitoring wells (WCMW-1 through WCMW-11). Technical Drilling Services (TDS) of Sterling, Massachusetts was contracted by Woodard & Curran to complete subsurface borings and install groundwater monitoring wells. Subsurface borings were completed via hollow-stem auger rig with samples collected via split spoon sampling methods. The borings were advanced to varying depths ranging from 12 to 25 feet bgs with the water table encountered at approximately 5 to 8 feet bgs. PID screening results ranged from below instrument detection limits to 73.8 ppm, with the majority of measurements being less than 1 ppm. The elevated PID readings corresponded to an interval of black stained, tar-like soils at WCSB-5.



• November 22, 2013 – TDS was contracted to advance at total of 14 soil borings (WCSB-4, WCSB-11 WCSB-7, and WCSB-12 through WCSB-22) for additional delineation purposes. Three borings (WCSB-4, WCSB-11 and WCSB-7) were co-located with previously installed boring/monitoring well locations to help delineate the vertical extent of contamination. Five borings (WCSB-18 through WCSB-22) were advanced to delineate the lateral and vertical extent of the former sump identified during demolition activities, while the remaining borings were completed to assist in delineating the extent of impacts. Borings were completed using direct-push Geoprobe drilling techniques. The soil borings were advanced to an approximate depth of 10 feet bgs with the exception of WCSB-20, which was advanced in the center of the former sump (RAM excavation area) to an approximate depth of 20 feet bgs. Soil staining was observed to terminate at approximately 15 feet bgs where a peat layer was observed.

In addition to samples collected from the borings described above, Woodard & Curran collected 17 additional surficial soil samples (WCSS-47 (for PCBs only), WCSS-49 through WCSS-63 and WCSS-72) for delineation purposes. Surficial samples were collected with a trowel or shovel and decontaminated .

PID screening results ranged from below instrument detection limits to 16.2 ppm (WCSS-49) for shallow soils and up to 359.3 ppm (WCSB-4 at a depth of 1.0-2.0 feet bgs) for deep boring samples. The majority of the results were less than 0.5 ppm. The elevated headspace results were atypical and not analogous to conditions observed during previous investigations. Elevated PID readings did not correlate well with analytical results for samples collected at these locations (i.e., elevated VOC concentrations were not present in laboratory results).

• May 12, 2014 – Due to reported concentrations of PCBs in shallow soils collected at the fence line between the Property and 500 Congress Street and 40 Vernon Street, the City decided to use some of the Massachusetts Brownfields Assessment grant to extend the characterization sampling program to include off-property locations. Shallow soil samples (i.e., 0 to 3 feet bgs) were collected from 15 locations (WCCS-1 through WCCS-13 and WCVS-1, WCVS-2) and deep soil samples were collected from 12 locations on 40 Vernon Street and 500 Congress Street. Borings were completed using direct-push Geoprobe drilling techniques. During this event, each boring was sampled at three intervals. The shallow soils (0-0.25'), shallow in plane with the surface of the Property depending on elevation change, and in plane with 2.5-3.0' samples at the Property. Deep boring sleeves were capped for future sampling depending on initial results. Deep sampling did not occur until July 31, 2014 for borings WCCS-1 through WCCS-7, WCCS-11 and WCCS-13.

Borings were advanced by TDS to a maximum depth of 10 feet bgs and samples were collected on a continuous basis. PID screening results ranged from below instrument detection limits to 16.2 ppm (WCCS-1 and WCCS-3 at approximately 0.5-1.0 feet bgs). The majority of the results were less than 0.5 ppm. Based on the PID readings during this event and the lack of correlation between PID screening results and laboratory analysis in previous events, PID screening results were not used to select samples for analysis. Samples were selected for analysis based on the existing data set and visual observations made during the soil boring program.

July 28-31, 2014 – In consultation with USEPA and MassDEP, Woodard & Curran developed a sampling plan to aid the USEPA in the Removal Action planned for the Property in 2014/2015. Woodard & Curran's sampling plan included the advancement of 92 soil borings (S-1 through S-82 (on property) and WCCS-14 through WCCS-23 (500 Congress Street)) using a track-mounted geoprobe drill rig to depths of approximately 15 feet bgs. Overall, the borings were advanced to create a 20-foot sampling grid for PCBs across the Property (82 locations) and adjacent properties (10 locations). At each boring location, soil samples were collected from representative sample intervals. The sampling intervals varied from boring to boring; however, in general samples were collected from three intervals: 0-0.25 feet bgs, 3-4 feet bgs, and 6-7 feet bgs. Sample locations located near the former sump area were collected at deeper intervals based on previous data, which indicated that PCBs were present at a depth of approximately 15 feet bgs and on



top of a peat layer. Samples were collected and submitted for PCBs via USEPA Method 8082 with Soxhlet extraction procedure (217 primary samples) and MCP 14 metals via MassDEP Methods (50 primary samples).

At each boring location, samples were collected on a continuous basis to evaluate subsurface conditions and the vertical extent of impacted media. As described above, due to the lack of correlation between PID headspace readings and analytical laboratory results from the first two sampling events, PID screening was not used to select samples for laboratory analysis.

#### 5.2 SUMMARY OF SOIL SAMPLING ANALYTICAL RESULTS

Analytical results from the soil sampling events are summarized in the following sections based on the depth of the sample below ground surface. Analytical results are summarized on Tables 1-1 through 1-4, which presents summaries of COPCs that were detected above the laboratory reporting limits collected at the Property (0-3 feet bgs and greater than 3 feet bgs) and off-property locations (0-3 feet bgs and greater than 3 feet bgs). Table 1-1 also includes the analytical results for soil samples collected during the USEPA START assessment described in Section 4.2. Copies of the complete analytical laboratory reports are provided in Appendix C. The locations of the soil samples are provided on Figure 2-1. A summary of the total PCBs and selected metals compared to the Method 1 S-1 Risk Characterization standards are depicted on Figures 4-1 through 4-9 for shallow soils (i.e., less than 3 feet bgs) and on Figure 5-1 through 5-9 for subsurface soils (i.e., greater than 3 feet bgs). Comparison to the Method 1 S-1 Risk Characterization standards in Figures 4 and 5 are for reference only and do not consider current uses of the Property (vacant) or historical fill identified in soils ranging in depth from existing grade to approximately 6-8 feet bgs with the exception of soil sample locations WCVS-1 and WCVS-2.

#### 5.2.1 Shallow Soil Sampling (< 3 feet bgs)

Shallow soil samples were collected from both on-Property and off-Property locations during the sampling events. Analytical results are summarized on Tables 1-1 and 1-3 and are presented on Figures 4-1 through 4-9. A summary of the analytical results for each of the main categories of analysis is as follows:

PCBs – PCBs were detected in 254 of 313 samples collected from on-Property locations. Total PCBs were reported at a maximum concentration of 2,300 mg/Kg and an average of 43.8 mg/Kg. In general, the areas of highest PCB impacts correlate to the three AOIs described in Section 3.4 with analytical results indicating that PCBs at concentrations ≥ 50 mg/Kg are limited to the AOIs as shown on Figure 4-1.

PCBs were detected in 37 of 40 samples collected from off-property locations with a maximum reported concentration of 40.6 mg/Kg and an average reported concentration of 2.71 mg/Kg. One location at the 500 Congress Street property (WCCS-13) exceeded the Imminent Hazard (IH) threshold of 10 mg/Kg in shallow soils (less than 12 inches) near residential properties. The Trustees for the Medical Condominiums implemented Immediate Response Action (IRA) activities under RTN 3-32452 as summarized in Section 2.6.

The average concentration of total PCBs at both on-Property and off-Property locations exceeded the MCP S-1 Risk Characterization standard and the EPA high occupancy use criteria, both of which are 1 mg/Kg.

Metals – Metals were detected above laboratory reporting limits in soil samples collected from various locations across the Property and from off-Property locations. While analytical results indicated that seven metals (antimony, arsenic, barium, lead, mercury, nickel, and zinc) were present in individual samples at concentrations above the applicable MCP Method 1 Risk Characterization standards, only lead and zinc were present at an average concentration exceeding the applicable MCP S-1 soil standards for either on-Property or off-Property locations. For lead, the average concentration in on-Property samples was 873 mg/Kg compared to 671 mg/Kg for off-Property locations. For zinc, the average concentration in samples collected from on-Property locations was 1,073 mg/Kg as compared to an average concentration of 1,329



mg/Kg for off-Property locations. Overall, analytical results were relatively consistent between the on-Property and off-Property locations and between soils collected from within and outside of the three AOIs.

Total chromium/hexavalent chromium samples were collected from locations intended to be co-located with historical samples where elevated concentrations were detected in samples collected by Weston in 2012. However, the total chromium data could not be reproduced from earlier sampling events. For on-Property locations, total chromium was reported at a maximum concentration of 560 mg/Kg. While the individual sample result was above the Method 1 S-1 Risk Characterization soil standard, the average concentration of total chromium was 74.1 mg/Kg and the maximum reported hexavalent chromium concentration was 5.71 mg/Kg, both of which are below the this soil standard. With the exception of analytical results from two on-Property samples collected along the western property boundary, chromium results above the Method 1 S-1 Risk Characterization standard of 100 mg/Kg were limited to within the AOIs. For soil samples collected from off-Property locations, total chromium was reported at a maximum concentration of 129 mg/Kg with an average of 27.3 mg/Kg.

- EPH and VPH Select soils samples were submitted for EPH/VPH analyses based on visual observations and the results of PID headspace screening. Analytical results from on-Property locations indicated that only dibenz(a,h)anthracene was present at an average concentration above the applicable MCP Risk Characterization standard. While other COPCs were detected at various locations and at individual concentrations above the MCP soil standards, the results were consistent with the use of fill materials throughout the area and limited impacts from petroleum releases except in the sump source area where petroleum impacts were identified at depths approaching 14 feet bgs. No other COPCs were present at an average concentration above the applicable criteria. Overall, there was no apparent correlation between the results of PID headspace screening and the analytical laboratory results.
- VOCs Select soil samples were submitted for VOC analysis based on visual observations and the results of PID headspace screening. Two COPCs were detected at an average concentration above the applicable Method 1 S-1 Risk Characterization standards; 1,4-dichlorobenzene and chlorobenzene. Analytical results indicated that other COPCs were detected in individual samples at concentrations above the MCP soil standards. Overall, there was no apparent correlation between the results of PID headspace screening and the analytical laboratory results.

#### 5.2.2 Subsurface Soil Sampling (> 3.0 feet bgs)

Subsurface soil samples were collected from both on-Property and off-Property locations during the sampling events. Analytical results are summarized on Tables 1-2 and 1-4 and are presented on Figures 5-1 through 5-9. A summary of the analytical results for each of the main categories of analysis is as follows:

PCBs — PCBs were reported at concentrations >1 mg/Kg in 22 samples collected from 19 soil borings (14 on-Property and 5 off-Property locations). Of these 22 samples, analytical results indicated that PCBs were present at concentrations ≥ 50 mg/Kg in two samples (total PCBs reported at concentrations of 92.2 and 195 mg/Kg), both of which were collected from within the AOIs described above. For off-Property samples, PCBs were reported at a maximum concentration of 18.4 mg/Kg in one sample collected from a depth of 4.5 to 5 feet bgs. Analytical results also indicated that the average reported concentration of PCBs in both on-Property samples (average concentration of 4.01 mg/Kg) and off-property samples (average concentration of 2.19 mg/Kg) exceeded the applicable Method 1 S-1 Risk Characterization standard of 1 mg/Kg. Overall, elevated PCB analytical results were detected in the three AOIs described above (particularly with regard to PCBs at concentrations ≥ 50 mg/Kg). However, PCBs were reported in individual soil samples outside the AOIs above the Method 1 S-1 Risk Characterization standard indicating that the presence of PCBs in subsurface soils is not limited to the immediate vicinity of the AOIs (i.e., known source locations).



Metals – Metals were detected above laboratory reporting limits in soil samples collected from various locations across the Property and from off-Property locations. While analytical results indicated that six metals (antimony, arsenic, barium, lead, nickel, and zinc) were present in individual samples at concentrations above the applicable MCP Method 1 Risk Characterization standards, only lead and zinc were present at an average concentration exceeding the applicable S-1 soil standards for either on-Property or off-Property locations. For lead, the average concentration in on-property samples was 234 mg/Kg compared to 584 mg/Kg for off-property locations. For zinc, the average concentration in samples collected from on-Property locations was below the Method 1 S-1 Risk Characterization standard with a reported average of 854 mg/Kg while the average concentration was 1,694 mg/Kg for off-Property locations. Deep soil samples were not analyzed for hexavalent chromium due to the results from the shallow soil samples and based on the total chromium concentration.

EPH and VPH – Select on-Property subsurface soils were analyzed for EPH and VPH based on visual observations and the results of PID headspace screening results. No off-Property samples were analyzed for EPH/VPH. Analytical results indicated that individual EPH COPCs were present a concentrations above the applicable Method 1 S-1 Risk Characterization standard; however, the average concentrations for these COPCs were below the applicable standard with the exception of benzo(a)pyrene (2.16 mg/Kg) and dibenz(a,h)anthracene (0.983 mg/Kg). None of the VPH fractions detected exceeded MCP Method 1 Risk Characterization standards. Analytical results are consistent with shallow soil results.

VOCs – Select on-Property soil samples were submitted for VOC analysis based on visual observations and the results of PID headspace screening. Two COPCs, 1,4-dichlorobenzene and chlorobenzene, were detected at concentrations above the applicable MCP Method 1 S-1 Risk Characterization standards in individual samples. The average concentration for both 1,4-dichlorobenzene (2.02 mg/Kg) and chlorobenzene (8.76 mg/Kg) exceeded the applicable Method 1 S-1 Risk Characterization standards of 1 and 3 mg/Kg, respectively. As with the shallow soil sample results, there was no apparent correlation between the results of PID headspace screening and the analytical laboratory results.

#### 5.2.3 Soil Sampling Data Summary

In general, PCBs, MCP 14 metals, and low-level EPH/VPH and VOC COPCs are located in surficial soils throughout the Property in areas characterized to contain historical fill material. The majority of the PCB and metals contamination detected in shallow soils is likely related to the historic metal scrapping, auto salvage and/or transformer cutting operations, and the presence of historical fill materials.

The subsurface soil analytical data collected to date indicates that subsurface soils are also primarily impacted by PCBs and metals associated with the three AOIs and the presence of fill materials across the Site. Low level concentrations of some EPH and VOC COPCs are also present at varying concentrations but remain in isolated areas such as the former sump area, and other AOIs identified at the Property.

Overall, analytical results are consistent with the known historic activities on the property as well as the use of historic fill materials throughout the area.

#### 5.3 SUMMARY OF MONITORING WELL INSTALLATION ACTIVITIES

Groundwater monitoring wells were installed at each of the eleven borings advanced on September 25 and 26, 2013. Monitoring wells were identified with the same number corresponding to the boring location, WCMW-1 through WCMW-11. The wells were completed with 2-inch diameter, schedule 40 PVC with a screen slot size of 0.01-inch and solid riser pipe near the surface. A sand pack was placed in the annular space between the borehole and the well to a height of two feet above the screen. A one-foot thick bentonite seal was placed above the sand pack and sand was extended to the surface. Wells located near the Property's perimeter were completed with a steel stand pipe while the more central wells were completed with flush-mounted road boxes. Boring logs that provide monitoring well construction details are provided in Appendix D. Following installation, wells were developed on September 27,



2013 using a centrifugal pump to improve the connection of the wells with the aquifer and remove fine sediments that accumulated in the well during installation. The locations of these eleven groundwater monitoring wells and the wells installed during previous activities are provided on Figure 2-2.

#### 5.4 SUMMARY OF GROUNDWATER SAMPLING RESULTS

Woodard & Curran completed groundwater sampling events in October 2013 and January 2014. Groundwater sampling events were also conducted by previous consultants in April 1989 and April 2013. Wells that were sampled during each event are presented below:

- April 1989: MW-1 through MW-4 (All wells destroyed under unknown circumstances).
- April 2013: MW-1R, MW-3R, MW-4R (Replacement wells installed by Watermark, April 2013).
- October 2013: MW-1R through MW-4R, WCMW-1 through WCMW-11 (WCMW wells installed by Woodard & Curran September 25-26, 2013.
- January 2014: MW-1R through MW-4R, WCMW-1 through WCMW-11.

A summary of the analytical results from the groundwater sampling events described above is provided below.

#### 5.4.1 CEES Groundwater Sampling Event (April 1989)

Groundwater samples were collected by CEES in 1989 from four monitoring wells located at the Property as part of an initial site investigation. Groundwater samples were submitted to Groundwater Analytical of North Scituate, Massachusetts to be analyzed for VOCs and TPH. Laboratory analysis of groundwater samples resulted in detections of various solvent and/or petroleum-based COPCs. Specifically, chlorinated solvents (including TCE and PCE) and the associated breakdown products were detected in groundwater monitoring wells MW-1, MW-3, and MW-4 above current Method 1 GW-2 Risk Characterization standards. A summary of the VOC analytical results is provided on Table 4. TPH results are not included on Table 4 because this analysis is not comparable to more recent analyses (EPH/VPH) and is not currently used to characterize the nature and extent of releases at MCP sites. Groundwater data collected by CEES is more than 20 years old and is no longer representative of existing conditions at the Property. Therefore, groundwater data collected by CEES was not included in determining the nature and extent of contamination at the Property for this Phase II CSA or as part of evaluating risks at the Property.

#### 5.4.2 Watermark Groundwater Sampling Event (April 2013)

On April 23, 2013, Watermark collected groundwater samples from three of the four replacement monitoring wells. Samples were not collected from the fourth location, MW-2R, due to budgetary restrictions. Low flow/low stress sampling techniques were used to limit the evacuation rate and drawdown in each well. Geochemical parameters, consisting of temperature, pH, specific conductivity, dissolved oxygen, turbidity, and oxidation-reduction potential (ORP) were continuously monitored using a flow-through cell. Samples were submitted under chain of custody to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts. The groundwater samples were analyzed for VPH fractions only by MassDEP methods, VOCs by USEPA Method 8260, EPH and target polynuclear aromatic hydrocarbons (PAHs) by MassDEP Methods, dissolved metals by USEPA Method 6010, dissolved mercury by USEPA Method SW-846 7470A, and hexavalent chromium by USEPA Method SW-846 7196A.

Various dissolved metals, VOCs, EPH, PAHs, and VPH COPCs were detected in groundwater samples collected during this sampling event. While no building exists at the Property, potential future developments may include buildings at the Property and were therefore compared to Method 1 GW-2 and GW-3 Risk Characterization standards. Data collected by Watermark were below applicable Method 1 Risk Characterization standards for this one sampling event. Refer to Table 4 for a summary of groundwater analytical data collected by Watermark. Analytical results from this event are considered representative of current site conditions and have been summarized on Table 5 and included in the Risk Assessment as described in Section 11.



#### 5.4.3 Woodard & Curran Groundwater Sampling Events (October 2013 and January 2014)

Prior to purging, the depth to groundwater and total depth of each monitoring well were measured to the nearest 0.01-foot using an electronic oil/water interface probe. The recorded depth to groundwater measurements were used to calculate the volume of standing water in the well. A summary of the field measurements is provided on Table 2. Groundwater was present at depths ranging from 5 to 12 feet bgs across the Property. Also prior to purging, all wells were examined for the presence of non-aqueous phase liquid (NAPL). NAPL was not observed in any of the monitoring wells in October 2013 and January 2014. Monitoring wells were purged using a peristaltic pump and dedicated tubing. Modified low flow/low stress sampling techniques were used to limit the evacuation rate and drawdown in each well. Geochemical parameters, consisting of temperature, pH, specific conductivity, dissolved oxygen and ORP were continuously monitored using a flow-through cell. Turbidity was monitored using water taken from the line prior to the flow-through cell during well purging. Due to the very silty nature of the groundwater, turbidity was also used to evaluate whether groundwater conditions stabilized prior to collecting samples. Field parameters are provided in Table 3 (including those recorded during the April 2013 sampling event conducted by Watermark).

Groundwater samples were collected from each well, as outlined above, using a peristaltic pump and dedicated tubing. Samples were collected in laboratory-supplied containers, cooled to 4°C, and submitted under chain-of-custody protocol to an appropriate laboratory facility. Samples collected by Woodard & Curran were submitted to Test America to be analyzed for VOCs via USEPA Method 8260, EPH and VPH via MassDEP methods, and dissolved MCP 14 metals via MassDEP methods. Dissolved metals samples were field filtered with a 0.45-micron filter prior to submittal. A summary of the groundwater analytical results is provided on Table 4. The complete analytical laboratory reports are provided in Appendix C.

During the October 2013 and January 2014 sampling events, nine VOC COPCs were detected. PCE and its associated breakdown products; TCE, cis-1,2-Dichloroethene (cDCE), and vinyl chloride (VC), were commonly detected in groundwater samples. Overall, individual results were reported at concentrations exceeding the MCP GW-2 standards for cDCE (WCMW-7), TCE (MW-3R, WCMW-7, WCMW-9), and VC (MW-2R, WCMW-3, WCMW-7) in the October and/or January sampling events. Individual VPH fractions were detected in the groundwater samples collected in the October and January sampling events with reported concentrations of C5-C8 aliphatic hydrocarbons and C9-C10 aromatic hydrocarbons but did not exceed the applicable Method 1 GW-2 or GW-3 Risk Characterization standards. Seven individual Target PAH analytes and the EPH hydrocarbon fractions were detected in various groundwater samples collected throughout the Property during the two sampling events. Target PAH COPCs associated with coal tar, such as, fluorene, naphthalene, and phenanthrene, were detected in seven wells during the October 2013 sampling event and two wells during the January 2014 sampling event. The maximum values for the aforementioned COPCs occurred at MW-4R. MW-4R also had the greatest number of EPH constituent detections. The October 2013 fluorene detection result of 43.4 ug/L at MW-4R exceeds the applicable MCP Method 1 GW-3 Risk Characterization standard of 40 ug/L. Fluorene was detected at a resulting value of 22 ug/L during the January 2014 sampling event.

Four of the MCP 14 metals (barium, chromium, nickel, and zinc) were consistently detected in groundwater samples collected throughout the site (present in samples collected from 14 or 15 reported locations). Overall, dissolved metals were mostly detected at low concentrations; however, during the January 2014 sampling event, samples collected from WCMW-6 and WCMW-8 exceeded the applicable MCP GW-3 standards for cadmium and zinc. The maximum cadmium detection occurred at WCMW-8 at a resulting concentration of 12.2 ug/L and the maximum concentration of zinc occurred at WCMW-6 with a resulting concentration of 2,200 ug/L. The applicable Method 1 GW-3 Risk Characterization standards for cadmium and zinc are 4 ug/L and 900 ug/L respectively.

During the January 2014 sampling event, the sample collected from WCMW-1 was analyzed for PCBs. Analytical results indicated that PCBs were present at a concentration of  $0.154 \mu g/L$ ; however, due to sediments in the sample at the time of sample collection, a second analysis was performed on a sample that was filtered using a  $0.45 \mu g/L$ 



filter to remove the sediments. Results from the filtered sample indicated that PCBs were non-detect (with a minimum laboratory reporting limit of < 0.233  $\mu$ g/L and a method detection limit of < 0.0930) indicating that the reported concentration in the unfiltered sample was due to PCBs associated with the sediment and not representative of groundwater conditions.

#### 5.5 SURVEYING

A Professional Land Surveyor (PLS) was subcontracted to complete a horizontal location and vertical elevation survey of the monitoring wells, fence line, and select topographic attributes located at the Property on January 27, 2014. Well elevations and groundwater level measurements were used to evaluate the localized groundwater flow direction across the Property and are discussed further in Section 7.3.



#### 6. DATA QUALITY REVIEW

This data quality and data usability assessment has been conducted to review the samples collected in support of Phase II CSA activities. Data validation and review was conducted by Woodard & Curran and a third-party validator, Data Check, Inc. of New Durham, New Hampshire. This review included a check of field documentation including sample collection and preservation methods, a check of the laboratory data and documentation, a review of the internal laboratory QA/QC procedures and results including surrogate recoveries, blank results, matrix spike (MS) and matrix spike duplicate (MSD) results, laboratory control standard (LCS) and laboratory control standard duplicate (LCSD) results, an evaluation of sample holding times, and field duplicate results. Data Check's data validation summaries are provided in Appendix C.

#### 6.1 SOIL DATA USABILITY ASSESSMENT

A summary of the data usability assessment for the data is presented below:

- Consistent procedures and laboratory analysis of the data were achieved. Sample containers were packed on ice and delivered to the laboratory under standard chain of custody procedures.
- Some samples were received at the laboratory below the acceptable temperature range (4° Celsius +/-2°). However, the samples were not frozen and no qualifications have been applied.
- All samples were extracted, digested, and/or analyzed within allowable holding times for the applicable methods with the exception of five samples for PCBs within SDG 480-50847. Detected and non-detected PCB results for the five samples were qualified as J or UJ.
- The data packages were reviewed to ensure that all sample and associated quality assurance results were available. Results of the completeness review indicated that all collected samples were analyzed and all quality control results were available to complete the data validation process.

#### VOCs

- No VOC field duplicate samples were collected. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. No MS/MSD was performed on the data packages. LCS/LCSD recoveries and RPDs met the acceptance in the majority of samples. Some qualifications were applied to data from each of the SDGs based on either LCS/LCSD recoveries or percent differences outside the control limits.
- Accuracy of the analytical data was assessed by reviewing the surrogate recoveries. The surrogate recoveries met the acceptance criteria with the exception of toluene and 4-bromofluorobenzene surrogates in one sample in SDG-480-50847.
- All VOC method blanks were non-detect for target compounds with the exception of one method blank associated with a detection for methylene chloride above the reporting limit. Since methylene chloride was not detected in the associated samples, no qualifications were applied.
- All VOC field/trip blank samples were non-detect for target compounds with the exception of one sample
  which had reported detections of acetone, methylene chloride, and tetrahydrofuran above the method
  detection limits but below the RL. Based on these detections, the concentration of acetone in one sample
  was qualified as undetected at the RL.
- According to the case narrative, some samples were analyzed at dilution and some samples were analyzed
  or re-analyzed at medium levels due to the high concentrations of target compounds in the samples.
  Reporting limits for those samples were elevated as a result of the dilutions and/or analysis at medium
  levels.



#### VPH

- No VPH field duplicate samples were collected. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. No MS/MSD was performed on the data packages. LCS/LCSD recoveries and RPDs met the acceptance criteria. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the surrogate recoveries. All VPH surrogate recoveries met the acceptance criteria. No qualifications were applied.
- VPH method blanks were non-detect for target compounds with the exception of three method blanks in SDG 480-46783 for the following compounds: C<sub>5</sub>-C<sub>8</sub> Aliphatics, C<sub>9</sub>-C<sub>12</sub> Aliphatics, and/or naphthalene. Analytical results for the affected samples were qualified based on the reported detections. The analytical laboratory "B" flag was removed from several of the samples based on these results.
- No VPH field blank samples were submitted with the analytical samples. No qualifications were applied.
- According to the case narrative, some samples were analyzed at dilution due to the high concentration of target compounds and/or due to the sample matrix. Reporting limits in the affected samples are elevated based on the dilutions performed.

#### EPH

- No EPH field duplicate samples were collected. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. No MS/MSD was performed on the data packages. LCS/LCSD recoveries and RPDs met the acceptance criteria with the exception of naphthalene in one sample in SDG 480-44524 and SDG 480-50847. Analytical results were qualified as either J- or UJ based on these results.
- Accuracy of the analytical data was assessed by reviewing the surrogate recoveries. EPH surrogate recoveries met the acceptance criteria with the exception of results in 12 of the samples. Analytical results for the affected samples were qualified as estimated (J,J-,UJ) based on these results.
- EPH method blanks had detections for several compounds above the MDL but below the RL as described in the data validation summaries. Analytical results from the affected samples were qualified based on these results. The analytical laboratory "B" flag was removed from several of the samples based on these results.
- No EPH field blank samples were submitted with the analytical samples. No qualifications were applied.

#### PCBs

- All PCB surrogate recoveries met the acceptance criteria or were diluted out with the exception of those samples described in the data validation summaries. Analytical results for the affected samples were not qualified based on the dilutions or only one column result outside the acceptance criteria with the exception of 14 samples. Analytical results from the 14 samples were qualified as estimated (J-,J+,UJ) based on the surrogate recoveries as described in the data validation summaries.
- The PCB method blanks were non-detect for target compounds. Two PCB field blank samples were collected and submitted for analysis. The PCB field blank samples were non-detect for target compounds. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. All PCB LCS/LCSD recoveries and RPDs met the acceptance criteria. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing MS/MSD results for the data packages. The
  complete MS/MSD results for three of the data packages were not usable due to sample dilutions. PCB
  MS/MSD sample results in the remaining samples met the acceptance criteria with the exception of results



- associated with three samples (240-40014-16, 240-40014-57, and 240-40080-43). Results for sample 240-40014-16 were not qualified due to the sample dilutions. All PCB results from the remaining two samples were qualified as estimated (UJ).
- A total of 20 field duplicate samples were collected during the sampling events to evaluate the precision of
  the analytical results. Relative percent difference (RPD) between the primary and associated duplicate
  samples met the acceptance criteria with the exception of the results for either Aroclor 1242, Aroclor 1254,
  or Aroclor 1260 in three samples. Analytical results for the applicable Aroclors in the affected samples were
  qualified as estimated (J) due to poor field duplicate precision.
- The RPD between sample column results for individual samples were evaluated to evaluate the precision of the results. The RPD between sample column results were evaluated and determined to be within the acceptance criteria (≤ 25 %) with the exception RPDs for select Aroclors in 43 samples. The applicable Aroclor results for the affected samples were qualified as estimated (J) base on this evaluation.
- Several samples were analyzed at a dilution due to the high concentration of PCBs present in the samples and/or due to the sample matrix. Reporting limits in these samples were elevated as a result of the dilutions performed.
- According the case narratives, several samples appear to contain PCBs; however, due to weathering or
  other environmental processes, the PCBs in the samples do not closely match any of the laboratory's
  Aroclor standards used for instrument calibration. The best overall pattern was used for identification and
  quantification. The PCB results for the affected samples have been qualified as estimated (J).
- According to the case narrative, PCB results in several samples within SDG 480-45969 appear to be a
  mixture of Aroclor 1254 and Aroclor 1260. The laboratory reported the results as Aroclor 1260 for the
  affected samples and the results have been qualified as estimated (J).

#### Metals

- Method blank sample results contained reported concentrations of zinc, selenium, nickel, thallium, and/or cadmium at concentrations above the MDL but below the RL. Analytical results for the majority of the affected sample were not qualified based on the sample concentrations greater than the blank action level. Analytical results for affected samples within SDG 480-45969 were qualified as undetected at the RL or estimated (J). See the data validation summaries for additional information.
- Three metals field duplicate samples were submitted with SDG 480-59783 to evaluate the precision of the analytical results. Relative percent difference (RPD) between the primary and associated duplicate samples met the acceptance criteria. No qualifications were applied to the data. No metals laboratory duplicates were analyzed for these samples. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS/ LCSD and MS/MSD. LCS/LCSD recoveries and RPDs met the acceptance criteria. No qualifications were applied. MS/MSD evaluation was performed on 15 samples for metals and on three samples specifically for mercury. MS/MSD sample results for metals did not meet the acceptance criteria in 14 of the 15 samples. Analytical results were qualified as described in the data validation summaries. MS/MSD results for the three mercury samples met acceptance criteria. No qualifications were applied.
- Some analytes in some samples were analyzed at a dilution due to the high sample concentrations and/or
  due to the sample matrix. Reporting limits for these analytes in the specific samples are elevated as a result
  of the dilutions.

#### **Hexavalent Chromium**

No hexavalent chromium field duplicate samples were collected. No qualifications were applied.



- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS/ LCSD and MS/MSD. LCS/LCSD recoveries and RPDs met the acceptance criteria. No qualifications were applied. MS/MSD met the acceptance criteria with the exception of MS results for soluble and/or insoluble results in two samples (WCSS-37 (0-0.25) and WCSS-42 (0-0.25). Analytical results were qualified as estimated (J) based on these results.
- Hexavalent chromium method blanks were non-detect. No field blank samples were submitted for hexavalent chromium analysis. No qualifications were applied.
- The hexavalent chromium laboratory duplicate met the acceptance criteria. No qualifications were applied.

#### Oxidation Reduction Potential and pH

- The redox and pH LCS results met the acceptance criteria. No qualifications were applied.
- The redox and pH laboratory duplicate sample results met the acceptance criteria. No qualifications were applied.
- No field duplicate samples were submitted. No qualifications were applied.

Based on this review, the data adequately represents the materials tested, and the samples are considered usable for the purposes of characterizing site soils as part of remedial planning.

#### 6.2 SOIL REPRESENTATIVENESS EVALUATION

The Representativeness Evaluation is an evaluation and demonstration of the adequacy of the spatial and temporal data sets used to support the conclusions in this Phase II CSA. Per MassDEP guidance (MassDEP, 2007), the elements of the Representativeness Evaluation are presented in the following sections.

#### Use of Field Screening Data

During the initial site investigation activities, field screening in the form of headspace screening and visual/olfactory observations was conducted at every soil boring completed by Woodard & Curran. Woodard & Curran collected field screening data at a frequency of approximately once every vertical foot to represent distinct soil layers within a given boring.

The primary use of field screening data during the initial sampling event was to assess likely extents of petroleum and VOC impacts in soil samples by the PID measurement of soil headspace concentrations because chlorinated solvents were originally thought to be a significant contaminant of potential concern for the site. The headspace data was used to assist in selection of sampling intervals for laboratory analysis and as a secondary indicator of the absence or presence of OHM impacts at a particular sample location. However, analytical laboratory data did not correspond to elevated headspace readings and in general, very low level concentrations of VOC COPCs, including chlorinated solvents, exist at the Property. Results from the sampling indicated that dielectric fluids (specifically those containing PCBs) and heavy metals comprise the majority of contamination present at the Property, neither of which possesses volatile properties.

During subsequent sampling events, field screening via PID and jar-headspace techniques continued only as an additional method to collect soil characterization data. Based on the consistent visual presence of anthropogenic debris and the presence of metals and PCBs across the Property, that the majority of soils present could be characterized as historical fill. As such, sampling locations and intervals were primarily pre-determined based on any apparent data gaps relating to delineating the extent of OHM, as identified during a review of historical site data and initial site assessments.

#### Sampling Rationale

Initial sampling events were conducted by Woodard & Curran to develop a more comprehensive understanding of the type and extent of contamination existing on site. Following a review of the initial data results, a characterization



sampling program was developed in consultation with EPA and MassDEP to address data gaps in the vertical and lateral distribution of soil impacts across the site, or to better define areas of impact.

#### Number and Spatial Distribution of Samples

The number and location of soil borings across the Property and at off-Property locations were developed by Woodard & Curran in consultation with EPA and MassDEP to evaluate lateral and vertical distribution of impacts. A total of 313 samples were collected from 157 on-Property borings across an approximate 37,500 square foot area. An additional 73 samples were collected from 26 borings advanced at off-Property locations. With respect to PCBs, the major site contaminant anticipated to drive remediation activities, a 20-foot sample grid was achieved across the majority of the Property and off-Property locations with vertical delineation conducted to depths up to 17 feet bgs.

Based upon the above information and the analytical sampling results, the number and locations of samples are considered appropriate for the purposes of this Phase II CSA. The existing dataset is considered sufficient to delineate the Disposal Site boundary and the locations of the various AOIs across the Property and to characterize risk (e.g., identify exposure pathways and receptors, identify Hot Spots, calculate exposure point concentrations, and identify background).

#### Temporal Distribution of Samples

Given that 1) the contaminants of concern are based on historical releases of PCBs and metals from historical operations dating back to the 1940's 2) limited groundwater impacts were identified from soil impacts; and 3) are not anticipated to drive remediation, the temporal distribution of soil samples is not considered to be a limiting factor with regard to site characterization.

#### Completeness

No data gaps have been identified within the existing dataset. All samples were analyzed as planned, and sampling locations are appropriately distributed across the Property. No significant data gaps were identified during the Representativeness Evaluation.

#### Inconsistency and Uncertainty

No inconsistent data were identified. The COPCs identified in soils are consistent with the known sources of releases at the Property and/or the presence of historical fill. Field observations are consistent with analytical results for both on and off Property locations.

#### Information Considered Unrepresentative

No data are considered unrepresentative of site conditions.

#### 6.3 GROUNDWATER DATA USABILITY ASSESSMENT

A summary of the usability assessment for groundwater data is presented below:

- Consistent procedures and laboratory analysis of the data were achieved. Sample containers were packed on ice and delivered to the laboratory under standard chain of custody procedures.
- Samples were received at the laboratory within the acceptable temperature range (4° Celsius +/-2°).
- All samples were extracted, digested, and/or analyzed within allowable holding times for the applicable methods.
- The data packages were reviewed to ensure that all sample and associated quality assurance results were available. Results of the completeness review indicated that all collected samples were analyzed and all quality control results were available to complete the data validation process.



#### VOCs

- No VOC field duplicate samples were collected. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. No MS/MSD was performed on the data packages. LCS/LCSD recoveries and RPDs met the acceptance with the exceptions of 2-butanone and tetrahydrofuran in some samples. However, analytical results for the compounds in the affected samples were non-detect and no qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the surrogate recoveries. The surrogate recoveries met the acceptance criteria. No qualifications were applied.
- All VOC method blanks were non-detect for target compounds. No qualifications were applied.
- VOC field/trip blank samples were non-detect for target compounds with the exception of reported concentrations of acetone and tetrahydrofuran in one sample at concentrations below the RL but above the MDL. No qualifications were applied because the affected samples were non-detect for the two compounds.
- According to the case narrative, some samples were analyzed at dilutions due to the high concentration of target compounds and/or the sample matrix. Reporting limits for those samples were elevated as a result of the dilutions.

#### **VPH**

- No VPH field duplicate samples were collected. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. No MS/MSD was performed on the data packages. LCS/LCSD recoveries and RPDs met the acceptance criteria. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the surrogate recoveries. All VPH surrogate recoveries met the acceptance criteria. No qualifications were applied.
- VPH method blanks were non-detect for target compounds. No qualifications were applied.
- No VPH field blank samples were submitted with the analytical samples. No qualifications were applied.
- According to the case narrative, some samples were analyzed at dilution due to the high concentration of target compounds and/or due to the sample matrix. Reporting limits in the affected samples are elevated based on the dilutions performed.

#### <u>EPH</u>

- Two EPH field duplicate samples were collected to evaluate the precision of the analytical results. Relative
  percent difference (RPD) between the primary and associated duplicate samples met the acceptance
  criteria. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. No MS/MSD
  was performed on the data packages. LCS/LCSD recoveries and RPDs met the acceptance criteria. No
  qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the surrogate recoveries. EPH surrogate
  recoveries did not meet the acceptance criteria in 21 of the samples. Analytical results for the affected
  samples were qualified as estimated (J,J-,UJ) based on these results.
- EPH method blanks had detections for several compounds above the MDL but below the RL as described in the data validation summaries. Analytical results from the affected samples were qualified based on these results. The analytical laboratory "B" flag was removed from several of the samples based on these results and some of the samples were qualified undetected (U) at the reporting limit.



No EPH field blank samples were submitted with the analytical samples. No qualifications were applied.

## **PCBs**

- All PCB surrogates were diluted out. No qualifications were applied to the data.
- The PCB method blanks were non-detect for target compounds. No PCB field blank samples were collected and submitted for analysis. No qualifications were applied.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS and LCSD. No MS/MSD was performed on the samples. All PCB LCS/LCSD recoveries and RPDs met the acceptance criteria. No qualifications were applied.
- No duplicate samples were submitted for PCB analysis. No qualifications were applied.
- Impacted sediment is believed to be in the bottles used for analyzing the unfiltered samples for WCMW-1 on January 31, 2014 and therefore is not considered usable in this Phase II CSA.

## Metals

- Method blank sample results from one data set contained reported concentration of zinc at a concentration above the MDL but below the RL. The laboratory "B" flag was removed from the samples and the results from affected samples were either qualified as undetected (U) at the RL or not qualified for those samples with reported concentrations above the RL. See the data validation summaries for additional information.
- Two metals field duplicate samples were submitted to evaluate the precision of the analytical results. RPDs between the primary and associated duplicate samples met the acceptance criteria. No qualifications were applied to the data. No metals laboratory duplicate samples were analyzed with the data packages.
- Accuracy of the analytical data was assessed by reviewing the recoveries for LCS/ LCSD and MS/MSD.
   LCS/LCSD and MS/MSD results met the acceptance criteria. No qualifications were applied.
- No metals field blank samples were submitted with the analytical packages. No qualifications were applied.

## 6.4 GROUNDWATER REPRESENTATIVENESS EVALUATION

The Representativeness Evaluation is an evaluation and demonstration of the adequacy of the spatial and temporal data sets used to support the conclusions in this Phase II CSA. Per MassDEP guidance (MassDEP, 2007), the elements of the Representativeness Evaluation are presented in the following sections.

## Use of Field Chemistry Parameters

During the groundwater sampling events, low flow sampling techniques and field chemistry parameters were used to evaluate when water-purging activities from the wells was representative of subsurface conditions and not the annular space around the wells. Overall, stability was achieved during the sampling event at each well, indicating that the water collected for laboratory analysis was representative of the groundwater conditions within the aquifer.

## Sampling Rationale

Two groundwater sampling events were conducted by Woodard & Curran to develop a data set across the Property with seasonal variations.

## Number and Spatial Distribution of Samples

Groundwater samples were collected from overburden monitoring wells across the Property. While sampling of the bedrock aquifer was not conducted, based on the Conceptual Site Model and the relative low concentration of COPCs in overburden wells within the three AOIs, the sampling of the bedrock aquifer does not impact the representativeness of the data set.



## Temporal Distribution of Samples

Given that the contaminants of concern for the Property are based on historical releases of PCB and metals and that limited groundwater impacts identified are not anticipated to drive remediation, the temporal distribution of samples is not considered to be a limiting factor with regard to site characterization. In addition, based on the availability of data from three different sampling events within a one year time period, temporal distribution is considered adequate for the data quality objectives of the sampling program.

## Completeness

No data gaps have been identified within the existing dataset. Collected samples were analyzed as planned, and sampling locations are appropriately distributed across the Property. No significant data gaps were identified during the Representativeness Evaluation.

## **Inconsistency and Uncertainty**

No inconsistent data were identified. The COPCs identified in groundwater are consistent with the known sources of release at the Site with the exception of PCBs in groundwater detected in the unfiltered sample collected from WCMW-1 on January 31, 2014.

## Information Considered Unrepresentative

As described in Section 5.4 above, analytical results for PCBs in the unfiltered groundwater sample collected from WCMW-1 in January 2014 are considered not representative of the groundwater conditions. Based on the results from the filtered sample, which indicated that PCBs were non-detect (<0.233 µg/L), PCBs reported in the unfiltered sample are considered to be unrepresentative of existing conditions at the Property.



## 7. SITE GEOLOGY AND HYDROGEOLOGY

This section presents an assessment of the topography, stormwater runoff, overburden soil and bedrock geology, and hydrogeologic conditions at the Property.

## 7.1 TOPOGRAPHY AND STORMWATER

The Property is located within a commercial and residential area of Quincy located north of the Crown Colony Office Park, an area which was historically a granite quarry. The surface topography of the Property and surrounding properties is generally flat with gently sloping grades. Stormwater runoff at the property generally splits (to the north and south) from the center of the Property but will infiltrate to the subsurface before leaving the Property because it is entirely unpaved. However, the northern and western Property boundary is gently sloped to the 500 Congress Street and 40 Vernon Street properties, which would allow stormwater runoff to collect and infiltrate in the landscaped areas along the fence line. The surrounding properties to the east, south, and west are parking lots that are elevated approximately three feet above the ground surface of the Property likely as a result of historical filling for the construction of Crown Colony Office Park. The 40 Vernon Street property to the north is approximately at the same elevation as the Property.

## 7.2 OVERBURDEN AND BEDROCK GEOLOGY

The majority of the Property and the surrounding properties were subject to the placement of historical fill to support development and commercial operations. Subsurface investigations completed to date have confirmed the presence of fill material in the upper six to eight feet. Anthropogenic materials such as metal fragments, glass, porcelain, plastic, and slag were all identified during soil characterization completed by Woodard & Curran. The underlying stratigraphy consists of interbedded sequences of dense silt, and coarse to fine sand, which generally grades toward more sand with depth. Organic peat was also observed in several of the soil borings throughout the Property at a depth of approximately 8-15 feet bgs. The hydrogeologic units observed during drilling indicate complex subsurface heterogeneities, with alternating sequences of glaciofluvial, glaciolacustrine, and swamp/bog deposits overlain by historical fill.

Bedrock was not encountered during drilling activities at the Property (maximum drilling depth of 25 feet bgs), and there are no bedrock outcrops at the Property or nearby properties. According to the USGS Generalized Lithology and Lithogeochemical Character of Near-Surface Bedrock in the New England Region (Robinson et al., 2003, MassGIS December 2013), bedrock underlying the Property is part of the Avalon Belt Formation consisting of mainly granite.

## 7.3 HYDROGEOLOGIC CONDITIONS

Depths to groundwater generally ranged between approximately five and nine feet bgs and were used to calculate groundwater elevations from surveyed reference elevations for wells on the Property. During the two events, groundwater elevation changes across the property were less than one foot. The groundwater contours developed during each sampling event are provided on Figures 6 and 7. Based on the network of wells included in the contour development (well locations WCMW-5 and WCMW-7 were not utilized when developing groundwater gradients due to the well screen being set in a confining peat layer and WCMW-8 was not utilized due to damage to the well casing), overburden groundwater flow at the Property generally indicated two flow directions, east and northeast.

Across the majority of the Property, the horizontal gradients were shallow. Horizontal hydraulic gradients ranged from 0.003 feet/foot to 0.005 feet/foot. While field hydraulic conductivity values were not obtained through field measurements, soil characteristics (silts and sands) would suggest a value of between 1.0x10<sup>-3</sup> to 1.0x10<sup>-5</sup> centimeter/second (cm/s) over the majority of the overburden materials. Based on the limited presence of a confining peat layer at depths of between 8 and 15 feet bgs, isolated areas of lower hydraulic conductivities in the range of



1.0x10<sup>-9</sup> cm/s may be present in some areas within the water table. These hydraulic conductivities are further supported by the results of groundwater sampling conducted to date (in relation to the historic nature of the release), the limits of impacted media, and the overall flat hydraulic gradients across the Property. Based on these factors, groundwater seepage velocities are not expected to exceed 200 feet per year.

## 7.4 SURFACE WATER

Surface water features are not located on the Property or adjacent properties. The nearest surface water located in the vicinity of the Property as follows:

- Unnamed surface water located approximately 300 feet and 1,300 feet south (crossgradient/upgradient) of the Property that appear to be stormwater retention basins;
- Unnamed surface water located approximately 550 feet southwest (upgradient) of the Property that appear to be stormwater retention basins;
- Unnamed surface water located approximately 1,700 feet west (upgradient) of the Property that appear to be stormwater retention basins; and
- Town Brook approximately 1,500 feet east (downgradient) of the Property.

Based upon groundwater analytical data, surface water features in the vicinity of the Property are not expected to be impacted by releases at the Property.



## 8. NATURE AND EXTENT OF OHM

## 8.1 NATURE OF THE RELEASE

Historical information available to Woodard & Curran indicated that in March 1986, a fire involving a 55-gallon drum of materials occurred at the Property. During the initial attempt to control the fire, the contents of the drum were released to the environment. A Senior Sanitary Engineer with MassDEP (formerly DEQE), investigated the release and determined that hazardous materials, specifically waste oil and waste solvent, may have been stored improperly on the Property. It was reported that the soil and/or groundwater were potentially contaminated with OHM.

The entire release history of the Property is unknown as there were likely additional unreported releases related to daily operations which occurred prior to and following release notification to MassDEP. The Property was an active auto salvage and scrapping yard for close to 50 years. Automobiles, machinery, tires, metal scrap, transformers, etc. were stockpiled in the undeveloped area south of the former building referred to as the "yard." Evidence of such materials mishandling can be observed in the form of extensive surficial soil staining in this area and analytical data presented in this Phase II CSA report. Dielectric fluid (oil) containing PCBs and metals that may be found in transformer oil include but are not limited to aluminum, barium, chromium, copper, iron, lead, silver, and zinc. It is likely that operations conducted at the Property resulted in the existing conditions identified at the Property and adjacent properties (500 Congress Street and 40 Vernon Street). PCBs, heavy metals, EPH, VPH, and VOC contamination can all be attributed to such processes known to have previously occurred at the Property.

## 8.2 EXTENT OF SOIL IMPACTS

The primary OHMs of concern are PCBs and metals, which were detected at Property and off-Property locations (500 Congress Street and 40 Vernon Street). The most common metals detected are cadmium, chromium, lead and nickel. EPH, VPH and VOC are also minor COPCs identified at the Property. Elevated PCBs and metals, as evidence by laboratory results, are present in the surficial soils (0-3 feet bgs). In general, elevated metals concentrations corresponded to locations of elevated PCB concentrations in surficial soils. However, elevated concentrations of PCBs and metals in subsurface soils do not directly correspond to surficial contamination (i.e. surficial and subsurface conditions can vary greatly). Based on analytical results, elevated concentrations in deeper soil do not extend across the vadose/capillary zone into the groundwater table with the exception of the former sump area (AOI #1) and a limited area within AOI #2. PCB impacts extend to a depth of approximately 15 feet bgs in AOI #1 (WCSB-20) and greater than 7 feet bgs in AOI #2 (S-29).

Based on the knowledge of historic site operations, visible soil staining, and the increased frequency and magnitude of COPCs detected in soil, three separate AOIs have been identified (AOI #1, AOI #2, and AOI #3). AOI #1 is the former sump source area located at the northwestern corner of the former building. AOI #1 is approximately 825 square feet and as previously mentioned, PCB contamination has been detected at an approximate depth of 15 feet bgs. AOI #2 is an area of approximately 2,721 square feet located in the central portion of the yard south of the former building structure. AOI #3 is an area of 5.961 square feet located in the southern portion of the "yard."

Overall, the distribution and extent of PCB, metals, EPH, VPH and VOCs varies since the releases may have occurred at different times, with different materials and at different magnitudes. Furthermore, the primary contaminants are not readily soluble and are unlikely to be transported uniformly from a point source (e.g., stormwater runoff, plowing the unpaved yard, etc.). Additionally, as noted in soil boring logs and from available history of the surrounding area, historical fill has been documented at the Property and adjacent properties. Differing volumes of fill and differing fill compositions across the Property may also contribute to the varying contaminant concentrations between locations and depths. Concentrations of metals, PAHs and other COPCs identified in fill materials at the Property and off-Property locations were considered part of the disposal site with the exception of two samples collected at 40 Vernon Street (WCVS-1 and WCVS-2).



## 8.3 EXTENT OF GROUNDWATER IMPACTS

The primary COPCs in the groundwater are similar to those detected in soil, including dissolved metals, EPHs, VPHs and VOCs. PCBs are insoluble in water unless in the presence of high concentrations of organic solvents. PCBs were detected above the laboratory reporting limit in a groundwater sample collected for WCMW-1 that was not filtered; however, given that high concentrations of organic solvents were not detected in groundwater at the property, the detection of PCBs is attributed to silt in the sample. This is further supported by results from a filtered groundwater sample collected at the same time which was non-detect for PCBs. Vinyl chloride was detected in samples of groundwater collected from MW-2R, WCMW-3, and WCMW-7. Elevated reporting limits above applicable Method 1 Risk Characterization standards makes it difficult to evaluate whether or not vinyl chloride would be present at other locations at the Property and will need to be evaluated further after remediation activities have been completed. Other chlorinated solvents and petroleum COPCs were detected across the Property; however, monitoring wells with average concentrations of COPCs above applicable Method 1 Risk Characterization standards (excluding vinyl chloride because of elevated detection limits) were MW-2R (VC), MW-4R (TCE), WCMW-3 (VC), WCMW-6 (zinc), WCMW-7 (cDCE, TCE, VC), and WCMW-8 (cadmium). Based upon existing groundwater analytical data, detected COPCs (TCE, cDCE, VC, zinc and cadmium) are infrequent and irregular and will need to be monitored after remediation activities.



## 9. ENVIRONMENTAL FATE AND TRANSPORT CHARACTERISTICS

## 9.1 CHEMICAL/PHYSICAL CHARACTERISTICS

The categories of COPCs at the Property and adjacent properties include PCBs, metals, petroleum (EPH/VPH), and VOCs. Characteristics of the various categories of compounds may be summarized as follows:

Category of OHM	Relative Solubility in Water	Relative Volatility	Relative Persistence	Relative Bioaccumulation Potential
PCBs	Low	Low	High	High
Metals	Low	Low	High	Moderate
EPHs	Low to Moderate	Low	Low to Moderate	Low
VPHs	Moderate	Moderate to High	Low	Low
VOCs	Moderate to High	Moderate to High	Low to Moderate	Low

The solubility of a compound establishes the upper limits of the concentrations at which a compound can dissolve in water. It should be noted that in complex mixtures such as groundwater, the effective solubility of individual compounds will differ significantly from the pure compound solubility. PCBs have extremely low solubility in water and will absorb to any suspended matter in the water column. Similarly, metals are typically insoluble in water however, some, such as zinc, can persist in water indefinitely.

The octanol/water partitioning coefficient ( $K_{ow}$ ) and the organic carbon/water partitioning coefficient ( $K_{ow}$ ) define the tendency of a compound to adsorb to organic matter in soil relative to the affinity for water. Higher  $K_{ow}$  or  $K_{ow}$  values indicate that a compound will adsorb more strongly to soil and therefore, will leach more slowly from soil into groundwater. The PCB Aroclors and metals at the Property and adjacent properties generally have high  $K_{ow}$  and  $K_{ow}$  values, and the petroleum ranges generally have moderate  $K_{ow}$  and  $K_{ow}$  values. Other VOCs and VPH COPCs identified at the Property generally have higher  $K_{ow}$  and  $K_{ow}$  values.

According to the USEPA Technical Factsheet on PCBs, PCBs experience tight adsorption when in soils and adsorption generally increases with the degree of PCB chlorination. The higher chlorinated PCBs will have a lower tendency to leach and it is only when in the presence of organic solvents that PCBs will leach rapidly through the soil matrix.

Additionally, according to a USEPA study titled *Behavior of Metals in Soils* (Mclean & Bledsoe, 1992), metals contamination in soil will normally be retained at the soil surface. The retention mechanisms for metals in soils typically include adsorption or precipitation. The extent of movement of metals contamination in soils correlates closely to soil properties including but not limited to pH, clay content, organic matter, and/or particle surface area. The natural weathering or changes in soil composition may increase the mobility of metals over time.

Henry's Law constants are a relative measure of volatility. The Henry's Law constants for VPH and VOCs are moderate to high, and volatile EPH COPCs are very low to moderate. For PCBs, the rate of volatilization decreases with increasing chlorination and therefore, is typically very low. PCBs have negligible vapor pressure and are not expected to volatilize. Also according to the USEPA Technical Factsheet, if released to the atmosphere, PCBs will primarily exist in the vapor-phase, with particulate phase associating increasing with chlorination. Volatilization only applies to select metals (mercury), when under certain conditions.

VOCs at the Property have relatively short to moderate half-lives, indicating that these detected COPCs may degrade relatively quickly if the appropriate conditions are present. The PCBs and metals at the Property are less susceptible



to degradation and are therefore relatively persistent in the environment. Biodegredation of PCBs in the environment is very slow due to the stability and persistence of the contaminant.

Bioconcentration factors for the VOCs, petroleum hydrocarbons, and PAHs are low; therefore, these compounds are not expected to bioaccumulate in organisms. PCBs have a generally high bioconcentration factor; however, bioconcentration of PCBs is expected mostly in aquatic organisms and therefore, this is not expected for the current extent of contamination at the property. Additionally, certain metals, such as zinc, can bioaccumulate significantly.

## 9.2 POTENTIAL MIGRATION PATHWAYS

Potential migration pathways for OHM may include soil, groundwater (including migration along preferential pathways such as subsurface utility lines), and air.

## 9.2.1 Soil

Surficial soils and soils located less than 3-feet bgs at the Property are primarily impacted by PCBs and metals. EPH, VPH and VOC COPCs have also been detected at very low concentrations and limited frequency. For current conditions, COPCs present in surficial soils may migrate via fugitive dust, erosive forces, vapor loss (primarily chlorinated VOCs and petroleum products), biodegration, and/or soil leaching. Because the majority of the Property is unpaved, the impacted surficial soils are subject to wind and stormwater erosion. However, based on the localized topography of the Property and the elevated nature of surrounding parcels (current conditions), minimal overland flow is believed to be generated during rain events and would be limited to the landscaped area located along the northern and western property boundary. If subsurface soil is exposed during potential excavation activities, the subsurface soil may be subject to similar transport mechanisms except stormwater runoff.

## 9.2.2 Groundwater

Low concentrations of dissolved metals, VOCs, VPH and EPH COPCs were detected in the groundwater at the Property. PCBs and metals are typically insoluble in water and would potentially migrate through the groundwater via bioaccumulation and/or adsorption to suspended particulates. Based upon the current extent of impacts to groundwater, the absence of active sources of petroleum and VOCs, and the likely age of the release (greater than 25 years ago), migration of COPCs in groundwater beyond the disposal site boundary at concentrations exceeding risk-based standards is not likely.

## 9.2.3 Air

VOC and petroleum COPCs (EPH/VPH) were detected in groundwater and vadose zone soils and groundwater has been recorded at depths less than 15-feet bgs. However, concentrations detected in either media were relatively low. Theoretically, volatile COPCs in soil and groundwater may serve as a source of impact to indoor air. The indoor air pathway was not evaluated because no building structures exist at the property, remediation activities are planned for the near future, and VPH and VOCs were not detected in groundwater samples collected from monitoring wells located in the GW-2 area (i.e. WCMW-1 and WCMW-4).



## 10. CONCEPTUAL SITE MODEL AND DISPOSAL SITE BOUNDARY

The Property is zoned for industrial use, is currently not occupied or developed, and is secured with a lockable chain-link fence. The City obtained the Property via tax foreclosure in 2009. Prior to 2009, the Intervale Street properties were owned by Henry P. Gregoire of PDM Metals, Inc. The former building structure was constructed in 1943 with small exterior additions occurring in the early to mid-1970's. Since the early 1940's, the Property was utilized as a junk and auto salvage yard with the most recent documentation of site activity occurring in the late 1990's. Demolition of the building was completed in August-September 2013 to facilitate comprehensive site assessment activities. Building structures including the lift, cess pool, and scale were removed and are not considered potential sources of impacts at the Property. However, the former sump (AOI #1) was identified as a source area for impacts to soil and groundwater. In addition, a fire in 1986 involving a 55-gallon drum of apparent waste oil and solvent as well as mishandling of OHM associated with daily operations contributed to petroleum and VOC impacts to soil and groundwater in the vicinity of the former building. Historical operations conducted outside in the "yard" particularly in AOIs #2 and #3 included cutting of transformers that had dielectric fluid containing PCBs, storing waste oils and lead-acid batteries, and using tar-like material to coat manholes also contributed to impacts in these areas. Based upon our existing understanding of historical operations, potential sources of impacts have been eliminated but residual mass remains and will need to be mitigated to achieve a Permanent Solution.

Elevated concentrations of PCBs and metals in soil are located in AOIs #1, #2, and #3 from historical operations particularly in the top 3 feet of soil. Deeper impacts are located in AOI #1 (approximately 15 feet bgs) and AOI #2 (greater than 7 feet bgs) and are likely present due to prolonged discharges to these areas because of mishandling OHM at the Property. Data collected as part of Phase II CSA and RAM activities indicate that elevated concentrations of PCB Aroclors, MCP metals, EPH carbon ranges and PAH COPCs remain in soils at the Property. VOC COPCs and VPH carbon ranges are also present at relatively low concentrations in soil. The primary COPCs, specifically PCBs and metals, will adsorb tightly to soils, will leach very slowly and will persist for prolong periods in the environment. Vertical migration into the soil was presumably limited due to the very compact nature of the historical fill, the dense nature of the silty substrate, and the very low concentrations of COPCs in groundwater.

Impacted soils are present outside of the AOIs likely due to multiple factors including wind erosion, heavy precipitation events and resulting stormwater runoff and erosion, plowing snow in the unpaved areas (the yard), and potentially drips, spills, and overspray of OHM during historical operations. Impacted historical fill was also identified across the entire Property and is contributing to the overall risks at the Property. These factors and the storage of OHM near the northern and western fence line (adjacent to 500 Congress Street and 40 Vernon Street) contributed to off-Property impacts identified during Phase II CSA activities.

Routes of exposure are limited due to the locked chain-link fence surrounding the Property. However, construction workers during remediation activities and nearby residents and office parks may be exposed to airborne contaminants when the soil is handled and/or during excessively windy days. Incidental ingestion, dermal contact and/or inhalation is possible for trespassers and/or site workers. These exposures are anticipated to be limited and can be managed during remediation activities. Groundwater is not a source of drinking water, impacts are limited to low concentrations of VOCs and metals, and the depth to groundwater is approximately 5 to 9 feet bgs; therefore, exposure to impacted groundwater is limited and may be encountered during utility work at the Property. The fact that groundwater is minimally impacted by historical operations relative to soil impacts is indicative of the properties of the primary COPCs (PCBs and metals; insoluble, low volatility, and an affinity for soil with limited ability to leach into groundwater). VOCs in soil and groundwater could pose a vapor intrusion risk for potential future Property occupants and will likely be addressed during remediation activities. Environmental receptors are not anticipated to be impacted by existing OHM at the Property based upon the distance to the nearest surface water feature (small wetland/ stormwater basin located approximately 300 feet to the south, upgradient of the Property), the very dense nature of the soil, the location within an urban area, and the fact that sources have been eliminated.

Refer to Figure 8 for a Stem and Leaf Diagram of the Conceptual Site Model.



## **Disposal Site Boundary**

The disposal site boundary (DSB) was established based upon review of the data obtained during field assessments and laboratory analytical data. The DSB is illustrated on figures included in this Report and encompasses soil sampling locations that have detectable concentrations of PCBs, metals, EPH/VPH, and VOCs above laboratory reporting limits. The existing DSB does not account for historical fill that was identified at the Property or adjacent properties with the exception of 2 samples (WCVS-1 and WCVS-2) collected on the 40 Vernon Street property that were excluded based upon concentrations of COPCs detected in soil that are related to historical fill materials.

The DSB comprises approximately 36,000 square feet (0.83 acres) across the 175 & 189 Intervale Street property, the paper street, and portions of 500 Congress Street and 40 Vernon Street. Based upon soil samples collected within the groundwater table at the disposal site, the vertical extent of the Site extends to a depth of up to 15 feet bgs in AOI #1, greater than 7 feet in one small area within AOI #2, and at an average depth of approximately 3 to 5 feet bgs in other areas of the disposal site.



## 11. RISK CHARACTERIZATION

A characterization of risk to human health, safety, public welfare, and the environment was completed for the disposal site in general accordance with procedures outlined in the MCP and in a manner consistent with scientifically acceptable risk assessment practices established by the MassDEP and the USEPA. For this disposal site, a "streamlined" MCP Method 1 Risk Characterization (RC) approach was used because conditions are such that additional response actions are necessary to achieve No Significant Risk.

## 11.1 SOIL AND GROUNDWATER CLASSIFICATION

## 11.1.1 Soil

The disposal site is located in a light industrial zoned area with commercial properties occupying the adjacent parcels. Residential properties are located within 500 feet of the Property. The Property is a vacant lot located at the dead end of a road. The site is secured by a lockable perimeter chain-link fence. The Property is unpaved with exposed gravelly soil, which is mostly devoid of grass or vegetative cover in most areas. Trees line the disposal site along the southern and western property boundaries, with a narrow landscaped area separating the Crown Colony Office Park parking lot from the Property fence line.

Since the Property is currently vacant and secured, children are not likely to be present. Therefore, under current conditions, unpaved accessible surface soils (0-3 feet) are classified as S-2 in accordance with MCP Method 1 criteria. Potentially accessible soils (3-15 feet unpaved or 0-15 feet paved) and isolated subsurface soils (greater than 15 feet or beneath the footprint of buildings) are classified as S-3.

In addition to current uses, the MCP also requires that foreseeable future activities and uses be considered when classifying soil at a disposal site. Since no Activity and Use Limitation (AUL) exists to restrict future uses at the Property, soils will be considered S-1 based on potential future uses. MCP S-1 soil standards were conservatively used for the purposes of this risk assessment. Figures 4 and 5 illustrate sample locations in surficial and subsurface soils exceeding Method 1 S-1 Risk Characterization standards and do not consider historical fill background concentrations with the exception of WCVS-1 and WCVS-2 (i.e., these samples were removed from the disposal site boundary because of the presence of fill materials).

## 11.1.2 Groundwater

Groundwater at the Property is not a current or potential source of drinking water, based on a comparison of site conditions to the seven criteria established by Section 310 CMR 40.0932 for GW-1 classification: groundwater is not 1) within a Zone II for a public water supply; 2) within an Interim Wellhead Protection Area for a public water supply; 3) within a Zone A of a Class A Surface Water Body used as a public water supply; 4) located within 500 feet of a private water supply well; 5) located 500 feet or more from a public water supply distribution pipeline; 6) within an area designated by a municipality specifically for the protection of groundwater quality to ensure its availability for use as a source of potable water; and 7) within a Potentially Productive Aquifer that has not been excluded as a Non-Potential Drinking Water Source Area. Therefore, groundwater is not classified as GW-1.

The MCP requires that groundwater be classified as GW-2 if it is located within 30-feet of an existing occupied building or structure, and the average annual depth to groundwater in that area is 15-feet or less. When two such conditions are met, impacted groundwater is considered a potential source of vapors to indoor air and is classified as GW-2 under the MCP. The depth to groundwater in the vicinity of the disposal site is generally at depths between 5 to 12 feet bgs. Additionally, two (2) businesses, Groleau Landscaping and TLC Supply, Inc., occupy buildings within 30-feet of the disposal site to the north and northwest. Therefore, groundwater in the vicinity of these establishments is considered GW-2. Future buildings at the Property will need to consider the potential for vapor intrusion at the Property and therefore, groundwater was compared to the GW-2 standards.



All groundwater in the Commonwealth of Massachusetts is also classified as GW-3, which assumes that groundwater will ultimately migrate and discharge to surface water. The nearest surface water is a man-made stormwater basin and small wetland area located approximately 300 feet south (crossgradient/upgradient) of the southern extent of the DSB. Town Brook and related wetlands are located approximately 0.25 miles (1,320 feet) east of the Site and the Old Quincy Reservoir located approximately one mile south of the Property. Therefore, groundwater beneath the disposal site is classified as GW-3.

## 11.2 CONSTITUENTS OF POTENTIAL CONCERN

The COPCs associated with mishandling of OHM during historical operations conducted by PDM, Inc. that were detected at least once above the laboratory reporting limits in soil and/or groundwater samples are considered COPCs. Concentrations of these COPCs in historical fill were not contemplated in this Method 1 RC and were assumed to be related to historical operations with the exception of soil sample locations WCVS-1 and WCVS-2. COPCs related to the historical releases to soil and/or groundwater at the Property include:

PCBs (USEPA 8082)	Metals	EPH (MassDEP)	VPH (MassDEP)	VOCs (US	EPA 8260)
Aroclor-1242	Aluminum	C9-C18 Aliphatics	C5-C8 Aliphatics	1,2,3-Trichlorobenzene	Dichlorodifluoromethane
Aroclor-1248	Antimony	C19-C36 Aliphatics	C9-C12 Aliphatics	1,2,4-Trichlorobenzene	Ethylbenzene
Aroclor-1254	Arsenic	C11-C22 Aromatics	C9-C10 Aromatics	1,2-Dichlorobenzene	m-Xylene & p-Xylene
Aroclor-1260	Barium	2-Methylnaphthalene	Benzene	1,3-Dichlorobenzene	Naphthalene
Total PCBs	Berrylium	Acenaphthene	Ethylbenzene	1,4-Dichlorobenzene	o-Xylene
	Cadmium	Acenaphthylene	m+p Xylene	2-Butanone (MEK)	Styrene
	Calcium	Anthracene	Methyl tert-Butyl Ether (MTBE)	4-Methyl-2-pentanone (MIBK)	tert-Amyl Methyl Ether (TAME)
	Chromium	Benzo(a)anthracene	Naphthalene	Acetone	Tetrachloroethene
	Hexavalent Chromium	Benzo(a)pyrene	o-Xylene	Benzene	Tetrahydrofuran
	Cobalt	Benzo(b)fluoranthene	Toluene	Bromomethane	Toluene
	Copper	Benzo(g,h,i)perylene		Carbon disulfide	trans-1,2-Dichloroethene
	Iron	Benzo(k)fluoranthene		Chlorobenzene	trans-1,3-Dichloropropene
	Lead	Chrysene		Chloromethane	Trichloroethene
	Magnesium	Dibenz(a,h)anthracene		cis-1,2-Dichloroethene	Trichlorofluoromethane
	Manganese	Fluoranthene			Vinyl chloride
	Mercury	Fluorene			
	Nickel	Indeno(1,2,3-cd)pyrene			
	Silver	Naphthalene			
	Selenium	Phenanthrene			
	Thallium	Pyrene			
	Vanadium				
	Zinc				

The above analytes were evaluated further in this RC. Please note that VOCs including 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 4-isopropyltoluene, isopropylbenzene, sec-Butlybenzene, n- Butylbenzene, and n-propylbenzene were not retained for the purpose of this RC because these analytes fall within the  $C_9$ - $C_{12}$  aliphatic hydrocarbon range which was included in this RC.

## 11.3 IDENTIFICATION OF EXPOSURE PATHWAYS AND EXPOSURE POINTS

The majority (greater than 99 percent) of the Property is currently unimproved and unpaved. The Site is vacant, unoccupied and is currently zoned for light industrial uses. Based upon current subsurface investigation data, a small portion of the DSB includes areas outside the Intervale Street property fence line (500 Congress Street and 40 Vernon Street). This area includes a small wooded/grass strip along the adjacent parking area at 500 Congress Street and a small fenced in area behind a building structure at 40 Vernon Street. The probability of anyone being present in these areas for an extended period is low. Employees, utility workers, and trespassers would be the only receptors to access soil under current conditions. Additionally, for the purposes of the human health RC, it was assumed that no restrictions would be placed at the Property that would prevent exposure of future receptors to impacted soil. Accordingly, it was assumed that these impacted soils may be brought to the surface and exposed in the future. Under future scenarios, trespassers, facility workers, construction/utility workers or hypothetical future site



residents may be exposed to COPCs in soil. Currently, no private wells exist at the Site or in the vicinity. Historically, the Property was serviced by municipal water. Therefore, if re-developed under future conditions, the only receptors who could potentially be exposed to groundwater beneath the Property are construction and utility workers.

Current employees at the Property and potential future occupants and/or residents could theoretically be exposed to VOC or VPH COPCs via volatilization from groundwater or soil, into soil gas, and into indoor air. However, based on analytical data and field screening completed during sampling activities, volatilization is likely minimal. However, future receptors inside of new buildings will need to evaluate the potential vapor intrusion pathway assuming that remediation activities do not reduce VOCs in soil and groundwater.

The following exposure assumptions were used to complete this RC. However, as discussed in the following sections, multiple COPCs (PCBs, lead, and zinc) exceeded Upper Concentration Limits (UCLs) in soil.

## 11.3.1 Soil

Exposure Point Concentrations (EPCs) for soil were calculated based upon a spatial average (based upon the location within the disposal site and depth of the soil samples). EPCs were calculated for accessible soils (soils less than 3 feet bgs, including surficial soils) and potentially accessible soils (soils greater than 3 feet bgs). The spatial average for COPCs within the disposal site boundary were used to estimate EPCs for soil. To conservatively evaluate risks at the Property and because remediation activities are planned for the Property, elevated concentrations were included in the overall EPC for each constituent which increased the EPC. In addition, elevated concentration of COPCs are not located in areas that would be associated with higher exposure potentials compared to the overall exposure potential across the disposal site and are not considered Hot Spots. When COPCs were not detected at concentrations above laboratory reporting limits, half the reporting limit was used for averaging purposes. Soil EPCs are summarized in Tables 1-1 through 1-4.

## Property EPCs (refer to Tables 1-1 and 1-2)

- For accessible surface soils (0-3 feet bgs), EPCs for 1,4-dichlorobenzene, chlorobenzene, dibenz(a,h)anthracene, PCB Aroclor 1242, PCB Aroclor 1254, PCB Aroclor 1260, total PCBs, lead, and zinc exceeded one to all three of the applicable Method 1 RC standards.
- For potentially accessible soils (>3 feet to 15 feet bgs), EPCs for 1,4-dichlorobenzene, chlorobenzene, benzo(a)pyrene, dibenz(a,h)anthracene, PCB Aroclor 1260, total PCBs, and lead exceeded one to all three of the applicable Method 1 RC standards.

## Off Property EPCs (refer to Tables 1-3 and 1-4) - combined 500 Congress Street and 40 Vernon Street

- For accessible surface soils (0-3 feet bgs), EPCs for PCB Aroclor 1260, total PCBs, lead, and zinc exceeded Method 1 S-1 RC standards.
- For potentially accessible soils (>3 feet to 15 feet bgs), EPCs for PCB Aroclor 1254, total PCBs, lead, and zinc exceeded Method 1 S-1 RC standards.

Please note that sample locations WCVS-1 and WCVS-2 were not included in the EPC calculation for off-property samples because concentrations are consistent with background conditions likely associated with historical fill and/or below Method 1 S-1 standards.

## 11.3.2 Groundwater

EPCs were calculated for all monitoring wells where COPCs were historically detected and are located within the DSB. EPCs were calculated using the temporal average of COPCs detected at each exposure point (i.e., individual monitoring wells). When COPCs were not detected at concentrations above laboratory reporting limits, half the reporting limit was used for averaging purposes. When only one sample round of data was available, the single data point was used for the groundwater EPC. Note that for vinyl chloride, elevated reporting limits were provided by the laboratory, which elevated the EPC concentration to above the Method 1 RC standards. The concentrations present



at these locations generally do not represent risk when compared to applicable MCP Method 1 GW-3 groundwater standards for current conditions with the exception of resulting concentrations of cadmium and zinc at WCMW-6 and WCMW-8. However, downgradient monitoring wells in close proximity to these respective locations had cadmium and zinc detected at concentrations that were orders of magnitude less and previous sampling were inconsistent with other sampling events at these wells. Based on the hydraulic gradient and the distance to surface water, these EPC exceedances do not pose a significant risk. In addition, WCMW-4 and WCMW-1 are compared to Method 1 GW-2 RC standards since they are currently located within 30-feet of an occupied building (north of these wells) and the depth to groundwater is less than 15 feet bgs. Future buildings at the Property with existing concentrations of COPCs could pose potential risk when compared to Method 1 GW-2 RC standards and will need to be considered after remediation activities and prior to achieving a Permanent Solution. COPC EPCs exceeding applicable Method 1 RC groundwater standards include TCE, cDCE, VC, cadmium, and zinc. Groundwater EPCs are summarized in Table 5.

## 11.4 COMPARISON TO UPPER CONCENTRATION LIMITS

Soil and groundwater EPCs and maximum detected concentrations were conservatively compared to the MCP UCLs on Tables 1-1 through 1-4 (soil) and Table 5 (groundwater). PCB Aroclor 1242, PCB Aroclor 1254, PCB 1260 and Lead exceed the soil UCLs. Zinc has a maximum soil detection equal to the UCL. Therefore, this condition precludes the achievement of No Significant Risk to Human Health or the Environment at the Site. No COPCs exceeded groundwater UCLs.

## 11.5 HOT SPOT EVALUATION

A "hot spot" is defined as a discrete area where COPC concentrations are substantially higher (greater than a factor of 10 to 100) than the average concentrations in the surrounding area. Identified hot spots must be considered as a distinct and separate exposure point. However, discrete areas that exhibit concentrations greater than a factor of 10 to 100 when compared to surrounding areas are not located in areas that would be associated with higher exposure potentials compared to the overall exposure potential across the disposal site. Therefore, hot spots were not identified during this evaluation and were not considered separate from exposure points.

## 11.6 CHARACTERIZATION OF RISK TO SAFETY

The risk of harm to safety is evaluated by comparing site conditions to applicable or suitably analogous safety standards. For the disposal site, no applicable or suitably analogous safety standards were identified.

The MCP identifies several additional criteria that need to be considered in evaluation of safety, including:

- The presence of rusted or corroded drums or containers, open pits, lagoons or other dangerous structures. None of these structures were observed on the Property.
- The threat of fire or explosion. No conditions were identified that would pose such a threat.
- Uncontained material that exhibits the characteristics of corrosivity, reactivity, or flammability. These
  materials were not observed at the time of the site investigations, nor are they likely to be present, given the
  nature of the known or potential releases at the disposal site.

Based upon the above evaluation, a condition of No Significant Risk of harm to safety exists for the Property, as no threat of physical harm or bodily injury to people was observed at the disposal site.

## 11.7 RISK CHARACTERIZATION SUMMARY

The risks associated with exposure to COPCs at the disposal site were evaluated with regard to human and environmental receptors using a Method 1 RC. The focus of this RC was based upon current and reasonably foreseeable exposures to human and environmental receptors at the Property.



During the streamlined RC process, Woodard & Curran identified that PCB Aroclors lead, and zinc are the primary COPCs in soil that exceeded applicable Method 1 RC standards and applicable UCLs for current uses and/or future residential uses. Other COPCs in soil that exceed applicable Method 1 RC standards include 1,4-dichlorobenzene, chlorobenzene, benzo(a)pyrene, and/or dibenz(a,h)anthracene. PAHs detected in historical fill identified at the Property are likely background conditions but were carried through this Method 1 RC with the exception of off-Property samples WCVS-1 and WCVS-2, which were ruled out based upon background conditions and/or concentrations less than Method 1 S-1 standards.

TCE, cDCE, VC, cadmium and zinc are the primary COPCs in groundwater that exceeded applicable (GW-3) and/or potentially applicable (GW-2) Method 1 RC standards. Based upon current uses of the Property, only cadmium and zinc exceeded GW-3 standards; however, these metals are not expected to be detected in surface water because downgradient wells from areas where exceedances were identified were below GW-3 standards at the Property and the nearest downgradient surface water is approximately 1,500 feet from the disposal site.

Therefore, the current disposal site conditions precludes the achievement of No Significant Risk to Human Health or the Environment at the Site. Results of the RC process were used to evaluate the need to implement additional response actions that will mitigate exposures and risks associated with residual COPCs at the Site. Based upon the conclusions of the Method 1 RC, additional response actions are necessary to achieve a Permanent Solution. Therefore, a Phase III Remedial Action Plan has been prepared to evaluate applicable remedial action alternatives to mitigate impacted soil which will ultimately reduce concentrations in groundwater.



## 12. PHASE II CSA CONCLUSIONS

This section summarizes the findings of the Phase II CSA for 175 & 189 Intervale Street in Quincy, Massachusetts. Historical research and field investigation activities conducted at the disposal site have led to the following conclusions:

- The disposal site, identified as RTN 3-2524 comprises approximately 36,000 square feet (0.83 acres) across 175 & 189 Intervale Street, the paper street, a portion of 500 Congress Street and a portion of 40 Vernon Street in Quincy, Massachusetts.
- Earliest obtainable records indicate that properties at 175 & 189 Intervale Street have been utilized as a junk yard and metal scrapping facility since the early 1940's.
- PDM Metals, Inc. occupied the Property beginning in June 1971 when the land was purchased by Henry P. Gregoire, Trustee of the Gregoire Family Trust. PDM Metals continued operations at the property until the mid-1990's when the Property was abandoned by the Gregoire Family Trust. The property was seized by the City via tax foreclosure in 2009 and has maintained the exempt status under M.G.L. 21E, Section 2.
- The Property was used by PDM Metals for auto salvage, metal scrapping, transformer cutting, manhole
  recoating and general materials storage. Improper procedures and mishandling of materials during
  these former operations are the sources of the conditions of OHM contamination at the Property.
- Potential conditions of OHM contamination were noted by MassDEP (formerly MassDEQE) in 1986, following a fire involving a 55-gallon drum of apparent waste solvent. Due to the length of operations occurring prior to and following the initial discovery of the contamination, it cannot be determined if releases may have occurred at different times, with different materials, and at different magnitudes.
- Hazardous materials left over from operations at the Property were collected, removed, and transported
  off-Property for disposal at an approved facility by the City in December 2012 and January 2013. All
  known sources of OHM have been removed or eliminated and historical operations and practices are
  no longer active at the Property.
- The former building was demolished in August/September 2013. During demolition activities, PCB-impacts building foundation and soil were encountered and a RAM Plan was prepared to remove the impacted foundation and soil in the top 3 feet to reduce site risks. The RAM was modified to conduct a bench-scale and pilot scale test to evaluate potential options to stabilize leachable lead and chlordane detected in disposal samples.
- During Phase II CSA activities, soil samples were collected from off-Property locations to better define the nature and extent of impacts from historical PDM, Inc. activities. Two off-property location (40 Vernon Street and 500 Congress Street) were approached by the City to collect samples under the Massachusetts Brownfields program. 120-day reporting conditions were identified at 40 Vernon Street and 500 Congress Street. The MassDEP was notified of the 120-day reporting conditions on May 20, 2014 (40 Vernon Street; RTN 3-32188) and September 18, 2014 (500 Congress Street; RTN 3-32443). During soil sampling activities in July 2014, an Imminent Hazard (IH) condition was identified on the 500 Congress Street property. The Trustees of the Medical Office Condominiums reported the IH condition to MassDEP on September 24, 2014 and MassDEP issued RTN 3-32452. The Trustees hired GZA to respond to the IH condition, which consisted on installing a temporary fence and plastic cover around the impacted area.
- PCBs, metals, and petroleum (EPH/VPH) and chlorinated VOCs were detected in disposal site soils.
  The majority of the contamination detected is related to the historic operations at the Property.
  Impacted soils are generally limited to the top 3 feet across the Property with a few exceptions where deeper impacts to the groundwater table were observed. The deepest impacts were identified in AOI #1 (former sump area; approximately 15 feet bgs) and AOI #2 (central yard area; greater than 7 feet bgs).



- Historical fill is present at depths ranging from existing grade to approximately 8 feet bgs at the disposal site. The underlying stratigraphy consists of interbedded sequences of dense silt, and coarse to fine sand, which generally grades toward more sand with depth. Organic peat was also observed in several of the soil borings throughout the Property at a depth of approximately 8-15 feet bgs.
- Groundwater is typically encountered at a depth of 5 to 12 feet bgs, with the depth varying seasonally
  and the locations of monitoring wells on top of the fill material that was located below the former
  building. Groundwater flow is generally towards the east and northeast in the approximate direction of
  Town Brook.
- Low concentrations of chlorinated solvents, cadmium, and zinc were detected in groundwater but are not expected to migrate off-Property at significant concentrations above applicable Method 1 RC standards.
- NAPL was not observed in any monitoring wells at the Property.
- The RC concluded that Method 1 RC standards and UCLs were exceeded in soil and/or groundwater.
   Therefore, this condition precludes the achievement of No Significant Risk to Human Health, Public Welfare, and the Environment at the disposal site.
- A condition of No Significant Risk to safety has been achieved at the disposal site.
- Additional Comprehensive Response Actions are required at this disposal site to achieve a Permanent Solution. A Phase III Remedial Action Plan was submitted concurrently with this Phase II CSA Report.



## 13. LIMITATIONS

The activities described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or limited is implied. These services were performed consistent with the agreement with our client. The conclusions presented in this Report were based upon the services described and not on scientific tasks or procedures beyond the scope of described services or time or budgetary constraints. Any statement or opinion contained in this report prepared by Woodard & Curran shall not be construed to create any warranty or representation that the property is free of pollution or complies with any or all applicable regulatory or statutory requirements; or that the property is fit for any particular purpose. Unless otherwise indicated in this Report, no attempt was made to check on the compliance of present or past owners of the site with federal, state, or local laws and regulations. Woodard & Curran Inc. shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld or not fully disclosed at the time the evaluation was performed.

Results of the activities contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, timeframes, and project parameters indicated. Woodard & Curran is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Analytes	MCP Method 1/3 Soil Standards S-1 & S-1 & S-2 & S-2 & S-3 &	S-3 & Con	ncentration	Exposure Point Concentrations	\$\$-01 7/5/2012 0-0.25	\$8-02 7/5/2012 0-0.25	7/	SS-03  5/2012  0-0.25	\$\$-04 7/5/2012 0-0.25	7	\$\$-05 7/5/2012 0-0.25	\$\$-06 7/5/2012 0-0.25		5-07 2012 0.25	\$\$-08 7/5/2012 0-0.25	\$5-09 7/5/2012 0-0.25	7/5/	3-10 2012 0.25	WCSB-1 9/26/2013 1-2		WCSB-1 9/26/2013 2.5-3	WCS 11/22/	2013	WCS 9/26/2 2.5-	013	WCSB-5 9/25/2013 0.5-1.5	WCSB-5 9/25/2013 2.5-3	WCSB- 9/25/201 2.5-3	13
Volatile Organic Compounds (mg/Kg)	GW-2 GW-3 GW-2 GW-3 GW-2	GW-3	(mg/Kg)	(mg/Kg)	Result Qual. 1/2 RL	Result Qual.	1/2 RL Result I	Qual. 1/2 RL R	esult Qual. 1/2	RL Result	Qual. 1/2 RL	Result Qual.	1/2 RL Result Qu	ual. 1/2 RL Resul	t Qual. 1/2 RL	Result Qual.	1/2 RL Result Qu								1/2 RL	Result Qual. 1/2 RL	Result Qual. 1/2	2 RL Result Qual.	1/2 RL
Volatile Organic Compounds (mg/kg) 1.2.3-Trichlorobenzare 1.2.4-Trichlorobenzare 1.2.4-Trichlorobenzare 1.2.4-Trimethyloenzare 1.2.0-Inhorobenzare 1.2.0-Inhorobenzare 1.3.0-Trimethyloenzare 1.3.0-Trimethyloenzare 1.3.0-Trimethyloenzare 2.8-Ustanore (MEK) 4-Methyl-Zeparlanore (MIBK) Acetone Benzarie* Bromomethane Carbon Disulfide Chlorobenzare Chloromethane cis-1.2-Dichloroethylene Dichloroethylene Dichloroethylene Dichloroethylene Tetrahyloenzare n-Propyloenzare Tetrahydrofuran Tolane**	50   400   50   400   50     50   400   50   400   50     50   400   50   400   50     40   50   400   50     40   40   200   200   400     0.5   30   0.5   30   0.5     NA   NA   NA   NA   NA     NA   NA	5.000 10.	0.0310 3.23 0.0579 2.06 0.0197 22.7 27.5 0.197 0.0664 0.207 0.430 0.0474 0.00556 95.0 0.548 0.120 0.322 0.134 0.134	0.00312 0.152 0.152 0.0163 0.103 0.0036 0.0036 0.963 1.21 0.0380 0.0184 0.12 0.0386 0.00377 0.00787 0.00787 0.00787 0.00713 0.0071 0.00713 0.0071 0.00713 0.00	-														0.00298 - 0.00298 - 0.00298 - 0.00298 - 0.0039 - 0.00041 - 0.0039 - 0.00041 -	0.00195	- NC 0.0795 NC 0.0795 NC 0.0795 NC 0.0795 NC 0.0795 NC 0.0795 NC 0.0795	<ul> <li>&lt;0.003</li> <li>&lt;0.0001</li> <li>&lt;0.0003</li> <li>&lt;0.0001</li> <li>&lt;0.0003</li> <li>&lt;0.00001</li> <li>&lt;0.0003</li> <li>&lt;0.00001</li> <li>&lt;0.00001</li> <li>&lt;0.0003</li> <li>&lt;0.00001</li> <li>&lt;0.00001</li> <li>&lt;0.0003</li> <li>&lt;0.00001</li> <li>&lt;0.0003</li> <li>&lt;0.00001</li> <li>&lt;0.0003</li> <li>&lt;0.</li></ul>	0.0015 0.0015	0.031		<ul> <li>&lt;1.28</li> <li>-</li> <li>NC</li> <li>3.23</li> <li>-</li> <li>-</li> <li>-</li> <li>1.28</li> <li>-</li> <li>NC</li> <li>2.06</li> <li>-</li> <li>-</li> <li>-</li> <li>1.28</li> <li>-</li> <li>NC</li> <li>-</li> <li>-<!--</th--><th></th><th>                                     </th><th></th></li></ul>			
Trichloroethylene Trichloroethylene Trichlorofluoromethane (Freon 11) Vinyl Chloride Volatile Petroleum Hydrocarbons (mg/kg) C5-C8 Aliphatics (adjusted)	0.3 30 0.3 60 0.3 NA NA NA NA NA NA 0.7 1.0 0.7 7 0.7	60 600 NA NA 60 600	0.402 0.090 0.0509	0.0359 0.0135 0.0085														<	0.0039 0.00779	0.00195 < 0.159 0.003895 < 0.318 0.00195 < 0.159	0.0795 NC	< 0.003 0.00288	0.0015	<0.117 - <0.234 - <0.117 - 79.6 -	0.0585 NC NC	<1.28 - NC <1.28 - NC <2.56 - NC <1.28 - NC			-
C9-C12 Aliphatics (adjusted) C9-C10 Aromatics Extractable Petroleum Hydrocarbons (mg/kg	1,000 1,000 3,000 3,000 5,000 100 100 500 500 500 g)	5,000 20,000 500 5,000	50.7 13.6	4.24 1.69					·														-	50.7 – 13.6 –	-				=======================================
C9-C18 Aliphatics C19-C38 Aliphatics C19-C38 Aliphatics C11-C32 Aromatics (Adjusted) 2-Methylnaphthatene Aconaphthene Aconaphthene Aconaphthylene Anthracene Benzo(a)pryrene Benzo(a)pryrene Benzo(a)pryrene Benzo(a)turomthene Benzo(a)turomthene Benzo(a)turomthene Benzo(a)turomthene Chrysene Diberz(a) hiarithracene Fluorene Fluorene Fluorene Indeno(12,3-cd)pryrene Phenamthrane Pyrene Polychlorinated Biphenyls (mg/kg)	2 2 2 7 7 7 30 7 7 40 40 300 1,000 1,000 3,000 3,000 5,000 70 70 400 400 3,000 0,000 400 400 3,000 0,000 400 400 3,000 1,000 1,000 3,000 3,000 5,000 1,000 1,000 3,000 3,000 5,000 7 7 4 4 3 300 7 7 4 40 300	5,000 10,000 5,000 10,000 10,000 10,000 10,000 10,000 10,000 300 300 300 300 3,000 10,000 300 3,000 10,000 3,000 3,000 10,000 3,00	6.890 9.730 1.870 0.632 0.211 0.686 0.086 4.08 5.20 7.26 3.77 2.94 0.632 2.06 10.6 0.375 3.92 4.44 8.42	305 612 188 0.250 0.155 0.264 0.293 1.31 1.80 2.39 1.34 1.06 1.76 0.908 2.16 0.239 1.31 0.908 0.				-	-						1				22.9 -   10.6 -   145 -   -	- <703 - <703 - <7.18	- 3.515 - 3.59			<ul> <li>(59)</li> <li>238</li> <li>-</li> <li>(64)</li> <li>-</li> <li></li></ul>	2.95	6,890 J - 9,730 J - 1,870			
Arodor-1242 Arodor-1248 Arodor-1254 Arodor-1260 Total PCBs	1 1 4 4 4 1 1 1 4 4 4	4 100 4 100 4 100	2,300 0.206 164 1,040 2,300	23.3 0.10 2.79 21.0 43.8	<ul> <li>&lt; 0.41 - 0.205</li> <li>&lt; 0.41 - 0.205</li> <li>&lt; 0.41 - 0.205</li> <li>1.4 1.4</li> </ul>	< 0.46 - 0.75	0.23 < 0.10 NC < 0.10 < 0.10 < 0.10 ND	- 0.05 < - 0.05 - 0.05	0.89 - 0.4 0.89 - N 4.5 - 1.5 - 6 -	145 < 0.44 IC < 0.44 - 3.9 - 1.9 - 5.8	- 0.22 - NC  	<0.83 - <0.83 - 6 1.5 - 7.5 -	0.415 < 0.10 -  NC < 0.10 -  - < 0.10 -  < 0.10 -  ND -  ND -  ND -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 < 0.10 -  0.415 <	- 0.05 < 0.45 - 0.05 < 0.45 - 0.05 0.65 - 0.05 0.45 - 1.05	7 - NC	< 0.09 - 0.62 - 0.42 -	0.045 < 1.90 0.045 < 1.90 5.4 4.9 10.3	NC <	0.0391 < 0.0391	0.01955     < 4.65       0.01955     < 4.65       0.01955     < 4.65       0.01955     < 4.65       0.01955     5.27        5.27	- 2.325 - NC - 2.325 	 		<0.0416 <0.0416 <0.0416 0.122 0.122	0.0208 0.0208 0.0208 - -	<362 - 181 <362 - NC <362 - NC 1040 1040	< 19.8	9.9 < 0.0342 NC < 0.0342 9.9 <b>0.121</b> - < 0.0342 <b>0.121</b>	0.0171 0.0171  0.0171
Metals (mg/kg) Aluminum Antimony Antimony Ansenic Bartum Beryllium Cadmium Cadmium Chromium Chromium Chromium Choper Iron Lead Magnesium Manganese Notes Seterium Silver Thallium Vanadium Zinc Hoscradent Chromium Mercury	20 20 30 30 30 20 20 20 20 50 1,000 1,000 3,000 3,000 5,000 90 90 200 200 200	30 500 500 500 500 500 500 500 500 500 5	14,000 112 74.1 4,750 1.96 2.6.3 12,000 550 120,000 120,000 120,000 140,000 4,600 4,600 4,600 4,77 4,77 6,10 1,000 4,501 1,000	1,142 52,400 873 3,030 681 80.4 1.35 0.932	6.3 2,700 120 J -	11	- NO - 2,900 - 14 - 4.1 - 4.1 - 55 - 12,000 - 98 - 2,000 - 240 - 13 - 195 - 3.8 - < 0.96 - 2.6 - 33 - 88	- 0.95	7.5	190 12 710 71,000 960 3,100 820 160 NC < 15		42,000 490 3,000 580 81 <12 <2.9 50 710	- 12,000 2.95 <1.9 3.9 - 3.9 - 23 1.2 <0.77 1.45 <0.96 - 1,100 - 14 - 4.6 - 6.9 - 15,000 - 18 - 2,300 - 230 - 230 - 230 - 230 - 200 - 40 - 46 - 2,300 - 15,000 - 14 - 46 - 2,300 - 15,000 - 14 - 46 - 2,300 - 25 - 15,000 - 16 - 2,300 - 25 - 2,300 - 20 - 20 - 20 - 20 - 10 7.5 - 10 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	7.4 420 27.00 27.00 3.10 430 69 - 1.9 <3.3 69 - 1.9 <3.3 3.3 42 - 3.00	0 - 1 039 0	619 624 624 623 624 625 626 627 627 627 627 628 629 629 629 629 629 629 629 629 629 629 629 629 629 629 639 640 65	- 14,000 2.95 11 2.95 16 - 330 1.2 < 330 1.45 12 - 6,000 - 125 - 120,000 - 120,000 - 13,500 - 120,000 - 1,300							3.49 J 74.1			5.39 - 139 - 1.43 - 0.603 12		

Notes:
mg/kg = Miligrams per klogram.
It bgs = Feet below ground surface.
NA = No standard available.
Only constituents that have been detected at least once among relevant samples are presented.
\*\* The highest detected concentration between primary and field duplicate samples is presented.

\*\* Constituent is not detected; value presented is the laboratory reporting limit (PLL).
Data qualifiers presented in the "Qual" column are defined thus. A "U" indicates that a non-detect result was qualified as estimated. A "i" indicates that a detected result was qualified as estimated. A plus (-) or minus (-) sign indicates the derection of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Congentrations (EPCs) were calculated based inton the average recreaming recognitions are sent that the administration of the primary concentrations.

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by NCC).

Method 15.1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

Analytes			1/3 Soil Standar		Maxii Dete	cted Exposure Point	t 9/25/20	3 9/	CSB-8 /25/2013	9/25			9/26/		WCSI 9/26/2	2013		WCSB-11 9/25/2013		VCSB-11 V25/2013	WCSB-12 12/22/2013	11/2	SB-13 2/2013	WCSB- 11/22/20	013	WCSB-1 11/22/201		WCSB-17 11/22/2013		WCSB-18 11/22/2013		VCSB-19 1/22/2013	WCSB- 11/22/2	2013
		& S-2 & /-3 GW-2			ICL Concen	tration (ma(Va)	2.5-3 Result Qual.	1/2 RL Result (	2-2.5 Qual. 1/2 RL	Result Q	5-3 1-2 ial. 1/2 RL Result Qual.	1/2 RL	2.5 Result Qu		2.5 Result Qua		Result	1-2 Qual. 1/2 RL	Result	2.5-3 Qual. 1/2 RL Result	2.5-3* Qual. 1/2 F		5-3 ial. 1/2 RL	0.5-1. Result Qual.		2.5-3 Result Qual.	1/2 RL R	2.5-3 esult Qual. 1/2 F	L Result	2.5-3 Qual. 1/2	RL Result	2.5-3 Qual. 1/2 RL	2.5-3 Result Qual.	
Volatile Organic Compounds (mg/Kg) 1,2,3-Trichlorobenzene	NA N		NA NA	NA I	VA 0.03			- < 0.0777	NC	-			- [ -	. ] .	-   -	-	< 0.00351	- 0.001755		< 0.00258			-   -	< 0.00238	0.00119	-   -	-	-   -   -	-	I - I -				-
1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene	6 70 NA N		3,000 6 NA NA	5,000 10 NA I	,000 3.2 VA 0.05	3 0.152 i79 0.0163		< 0.0777 0.0519	0.03885 			-		-	-   -		< 0.00351 < 0.00351	- 0.001755 - 0.001755	-	<0.00258 <0.00258				< 0.00238 < 0.00238	0.00119 0.00119		-				-   -			
1,2-Dichlorobenzene 1,3,5-Trimethylbenzene	100 3i		300 100 NA NA	300 10 NA I		0.103		< 0.0777 <b>0.0197</b>	0.03885 	-		-		-			< 0.00351 < 0.00351	- 0.001755 - 0.001755	-	< 0.00258		129 – 129 –	-   -	< 0.00238 < 0.00238	0.00119 0.00119	-   -	ļ - I	-   -   -		I - I -		-   -		-
1,3-Dichlorobenzene	100 1	0 200	500 200	500 5,	000 22	7 0.963		- < 0.0777	0.03885			-				-	< 0.00351	- 0.001755	-	< 0.00258	- 0.001	129 -		< 0.00238	0.00119	-   -	† <del>-</del>		-	T				-
1,4-Dichlorobenzene 2-Butanone (MEK)	1 8 50 4		400 1 400 50	2,000 10 400 10	,000 27			- < 0.0777 - < 0.777	0.03885 NC			-					< 0.00351 < 0.0351	- 0.001755 - 0.01755	-	< 0.00258 < 0.0258				< 0.00238 < 0.0238	0.00119 0.0119	_	<del> </del>			+-+:				
4-Methyl-2-pentanone (MIBK)	50 4	0 50	400 50	400 10	,000 0.06	664 0.0184		- < 0.777	NC			-	-	-			0.00696	-   -	-	< 0.0258	- 0.01	129	-   -	< 0.0238	0.0119	-   -	ļ - l		-	-				
Acetone Benzene**	50 41 40 4		400 50 200 400	400 10 1,000 10		30 0.0366		<7.77 <0.0777	NC 0.03885	-		-					0.0138 0.0021		-	<b>0.0341</b> < 0.00258		129	=   = =	0.0113 < 0.00238	0.00119	-   -	<del>  -</del>  -		-	-				
Bromomethane Carbon Disulfide	0.5 3 NA N		30 0.5 NA NA	30 6, NA I	000 0.04 NA 0.00			- < 0.155 - < 0.0777	NC			-					< 0.00701 < 0.00351	- 0.003505 - 0.001755	-	<0.00516 <0.00258		258		< 0.00476 < 0.00238	0.00238 0.00119		<u> </u>		-	T = 1 = :				
Chlorobenzene	3 1	0 3	100 3	100 10	,000 95	0 3.98		- < 0.0777	- 0.03885			-		-			< 0.00351	- 0.001755	-	< 0.00258	- 0.001	129 –	-   -	< 0.00238	0.00119	-   -	1 - 1	-   -   -	-			-   -		
Chloromethane cis-1,2-Dichloroethylene	NA N 0.1 1		NA NA 500 0.1	NA I 500 5,	VA 0.05 000 0.5	32 0.00611 48 0.0387		< 0.155 < 0.0777	NC 0.03885	-		-					< 0.00701 < 0.00351	- 0.003505 - 0.001755	-	< 0.00516 < 0.00258		258 129		< 0.00476 < 0.00238	0.00238 0.00119	-	<del>  -</del>		-	+				
Dichlorodifluoromethane (Freon 12) Ethylbenzene**	NA N 500 5		NA NA 1,000 1,000		000 0.1 ,000 0.3			< 0.155 < 0.0777	0.0775 0.03885			-					< 0.00701 0.00838	- 0.003505	-	<0.00516 0.00606		258		< 0.00476 0.00608	0.00238	-   -	ļ - I		-					-
Isopropylbenzene (Cumene)	NA N	A NA	NA NA	NA I	VA 0.05	96 0.0135		- < 0.0777	- 0.03885			-					< 0.00351	- 0.001755	-	< 0.00258				< 0.00238	0.00119	-   -	<u> </u>		-	<u> </u>	-			
m+p Xylene** Naphthalene**	100 5i 20 5i		1,000 100 1,000 20	3,000 10 3,000 10		3 0.148 2 0.766		0.0275 11.2		-		-					<b>0.0169</b> < 0.0351	 - 0.01755	-	0.0203 < 0.0258			-	0.0175 - 0.00296 -	+ -		- <	0.536 - 0.26	8 -	+=+-	 - < 0.535	 UJ 0.2675	< 0.517	0.2585
n-Butylbenzene n-Propylbenzene	NA N	A NA	NA NA	NA I		24 0.0213		< 0.0777	0.03885 0.03885			-				-	< 0.00351 < 0.00351	- 0.001755 - 0.001755	-	< 0.00258	- 0.001	129 - 129 -		< 0.00238 < 0.00238	0.00119 0.00119			_   _   _		I = I =				
o-Xylene**	100 5	0 100	,000 100	3,000 10	,000 0.5	31 0.0411		- 0.0216				-					0.00689	-   -	-	0.00738	1 - 1 -			0.0066	-	-   -	<u> </u>			+	_			
p-Isopropyltoluene (p-Cymene) Styrene	NA N 4 7	A NA ) 4	NA NA 300 4	NA I 2,000 10	NA 0.2			- < 0.0777 - 0.0149	0.03885 			-	T		-   -		< 0.00351 0.00364	- 0.001755 	-	< 0.00258 < 0.00258		129 129		< 0.00238 < 0.00238	0.00119 0.00119	- T-	<u> </u>		-	+	-   -		- T-	-
Tetrachloroethylene	10 3	10	200 10	1,000 10	,000 3.9	14 0.297		0.198	- ! -	-	-   -   -		-			-	0.257		-	0.132	İ - İ -		-	0.0137	-	-   -				-	-   -			-
Tetrahydrofuran Toluene**	NA N 500 5	0 1,000			NA 6.6 ,000 1.1	1 0.102		< 1.55 0.0152	- 0.775 	<u> </u>		-	== +:			-	< 0.0701 0.00399	- 0.03505 	-	< 0.0516 0.0866	1 - 1 -			< 0.0476 0.137	0.0238	- +-	<u> </u>			<u> </u>	-   -			-
Trichloroethylene Trichlorofluoromethane (Freon 11)	0.3 3 NA N		60 0.3 NA NA	60 6	00 0.4 NA 0.0	0.0359 0.0135		< 0.0777 < 0.155	0.03885 0.0775	-		-				-	<b>0.00658</b> < 0.00701	- 0.003505	-	<b>0.00476</b> < 0.00516		258		< 0.00238 < 0.00476	0.00119 0.00238				-					-
Vinyl Chloride	0.7 1		7 0.7	60 6	00 0.05			- < 0.0777	- 0.03885			-	- 1 -	-   -	-   -		< 0.00351	- 0.001755	-	< 0.00516 < 0.00258			-   -	< 0.00238	0.00119	-   -	† -	-   -   -	-	† - † -		-   -		
Volatile Petroleum Hydrocarbons (mg/kg) C5-C8 Aliphatics (adjusted)	100 1	0 500	500 500	500 5,	000 79	6 5.57		- 1.31					-   -			-	0.665				- -		-   -	-   -	I -	-   -	-							+
C9-C12 Aliphatics (adjusted) C9-C10 Aromatics	1,000 1,0 100 1			5,000 20 500 5,	,000 50 000 13			< 14.5 1.53	7.25 			-				-	< 0.256 0.273	- 0.128 	-			-			-	-   -	ļ - I		-					-
Extractable Petroleum Hydrocarbons (mg/kg)	100											-															-		-		-			
C9-C18 Aliphatics C19-C36 Aliphatics	1,000 1,0 3,000 3,0			5,000 20 5,000 20	,000 6,8 ,000 9,7			< 5.63 <b>501</b>	- 2.815		180 - - 1940 -	-					< 49.1 <b>242</b>	- 24.55	-						-	-   -		30.9 J 256 J	-	-	- < 5.35 - < 5.35	2.675 2.675	< 5.17 - < 5.17 -	2.585 2.585
C11-C22 Aromatics (Adjusted) 2-Methylnaphthalene	1,000 1,0 80 3		3,000 5,000 500 80	5,000 10 500 5,		70 188 32 0.250		- 183		-	119 -	-				-	1120		-			-			-	-   -		102 J 0.536 UJ 0.26		-	- < 5.6 - < 0.535	- 2.8 - 0.2675	< 5.26 - < 0.517 -	2.63 0.2585
2-Metnyinaphthaiene Acenaphthene	1,000 1,0	00 3,000		5,000 10	,000 0.2	11 0.155				-		-					-		-		-   -				1 -	-   -	<1	0.536 UJ NC	-	+= +=	- < 0.535	NC	< 0.517	NC
Acenaphthylene Anthracene	600 1 1,000 1,0	0 600 00 3,000	10 600 3.000 5.000	10 10 5,000 10	,000 0.3 ,000 0.6					-		-				-	-		-						-			0.536 UJ 0.26 0.135 J	3 -		- < 0.535 - < 0.535	0.2675 0.2675	< 0.517 < 0.517	0.2585 0.2585
Benzo(a)anthracene	7		40 300	300 3,	000 4.0	1.31						-	-	-			-	-   -	-		- -	-			1 -	-   -	1 -	0.476 J		-	- < 0.535	0.2675	< 0.517 -	0.2585
Benzo(a)pyrene Benzo(b)fluoranthene	7	40	7 30 40 300	30 3 300 3,		0 1.80 6 2.39						-					-		-						-	-   -		1.08 J 2.16 J	-	-	- < 0.535 - < 0.535	0.2675 0.2675	< 0.517 – < 0.517 –	0.2585 0.2585
Benzo(g,h,i)perylene Benzo(k)fluoranthene	1,000 1,0 70 7			5,000 10 3,000 10		7 1.34 14 1.06				-		-	- [			-	-	-   -	-		-   -	-			-	-   -		0.536 UJ 0.26 0.536 UJ 0.26		T - I	- <b>0.221</b> - < 0.535	0.2675	< 0.517 - < 0.517 -	0.2585 0.2585
Chrysene	70 7	400	400 3,000	3,000 10	,000 6.3	1.76				-		-	-   -	-   -		-	-		-		- -	-	-   -		-	-   -	1 -	0.737 J		-	- < 0.535	0.2675	< 0.517 -	0.2585
Dibenz(a,h)anthracene Fluoranthene	0.7 0 1,000 1,0		4 30 3,000 5,000	30 3 5,000 10		6 0.908 6 2.16						-					-		-						-	-		1.84 J 2.26 J	-	-	- <b>0.124</b> - < 0.535	- 0.2675	< 0.517 - < 0.517 -	0.2585 0.2585
Fluorene Indeno(1,2,3-cd)pyrene	1,000 1,0		3,000 5,000 40 300	5,000 10 300 3,		75 0.239 12 1.35				-		-				-	-		-									0.536 UJ 0.26 0.536 UJ 0.26		-	- < 0.535 - <b>0.163</b>	0.2675 	< 0.517 < 0.517	0.2585 0.2585
Phenanthrene	500 5	0 1,000	,000 3,000	3,000 10	,000 4.4	14 0.951				-		-	-   -	-   -		-	-		-		- -	-	-   -		-	-   -	1 -	0.407 J		-	- < 0.535	- 0.2675	< 0.517 -	0.2585
Pyrene Polychlorinated Biphenyls (mg/kg)	1,000 1,0	00 3,000	5,000	5,000 10	,000 8.4	2.06		i		- 1	-   -   -		- 1 -	- 1 -	- 1 -	i -	- i	<u> </u>		-   -   -	1 - 1 -	<u> </u>	- 1 -	- i -	i -	<u> </u>	i	0.616 J	-		- < 0.535	0.2675	< 0.517 -	0.2585
Aroclor-1242 Aroclor-1248	1 1	4	4 4	4 1 4 1	00 2,3 00 0.2		< 0.0368 - < 0.0368 -	0.0184 0.0184		< 0.0454 < 0.0454	- 0.0227 - 0.0227	-	< 0.0388 - < 0.0388 -	- 0.0194 - 0.0194			= 1		< 0.347 < 0.347	- 0.1735 <b>2,300</b> - 0.1735 < 375	J	- < 0.192 C < 0.192	- 0.096 - 0.096			< 0.374 - < 0.374		35.8 - 17. 35.8 - NC			05 < 0.0373 C < 0.0373	- 0.01865 0.01865	< 0.0348 < 0.0348	0.0174 0.0174
Aroclor-1254	1	4	4 4	4 1	00 16	4 2.79	< 0.0368	0.0184		< 0.0454	- 0.0227	-	< 0.0388 -	- 0.0194		-	-		0.63	< 375	- N	C < 0.192	0.096			< 0.374	0.187 <	35.8 – 17.	< 18.1	9.	05 < 0.0373	- 0.01865	< 0.0348	0.0174
Aroclor-1260 Total PCBs	1 1	4	4 4	4 1	00 1,0 00 2,3		0.0381 0.0381			0.126 0.126		-	0.0555 - 0.0555 -						< 0.347 0.63	- 0.1735 < 375 <b>2300</b>		7.5 0.48 - 0.48			-	1.32 – 1.32 –		395 395			< 0.0373 ND	0.01865 	< 0.0348 - ND -	0.0174 -
Metals (mg/kg) Aluminum	NA N	A NA	NA NA	NA I	NA 14.0	100 9.240			- 1 -	- 1	-   -   -   -		- 1								-   -		- 1 -			-   -	-	-   -   -		- 1		-   -		4
Antimony	20 2	30	30 30	30 3	100 11	2 5.12	3.49 J		-   -	0.613	, <u> </u>	-	< 0.55 L	JJ 0.275	< 0.534 U.		-		1.5	J	- -		-   -	-   -	1 -	-   -	-	-   -   -		<u> </u>	-   -	-   -		
Arsenic Barium	20 2 1,000 1,0		20 50 3,000 5,000	50 5 5,000 10	,000 74 ,000 4,7	50 217	230			11.1 41.8			112 -		7.74 – 31.6 –				4.99 87.7				-		+ - +	-	-							+
Berylium	90 9	200	200 200	200 2,	000 1.9	0.556	0.442			0.499 2.73		-	1.45 - 0.695 -		1.93 _		-		0.662 26.3		I <u>-</u>   -	-   -			I		I - I	-   -   -						
Calcium	NA N	) 60 A NA	NA NA	NA I		3 4.52 100 5,190	6.93					-	- 1 -		0.348 -		-		-		- -				-	-   -	-							
Chromium Cobalt	100 11 NA N	0 200 A NA A NA	200 200 NA NA	200 2, NA	000 56 NA 25	0 74.1 0 9.84	518	1		32.6		-	13.6	-	1.52 -	-	-		24.5		. <b></b>								-		 			-
Copper	NA N	A NA	NA NA	NA I	NA 3,5	00 1,142		ļ			<del></del>						-		-		<u> </u>		-				<del>   </del>							
Iron Lead	200 2		600 600	600 6,	000 131	000 52,400 00 <b>873</b>	 895 J			62.1	 J		218	 J -	 356 J		-		 460	J			-   -		-	-   -	÷							-
Magnesium Manganese	NA N NA N	A NA	NA NA	NA I	VA 4,6	00 3,030		1		- :		-		- : -		-			-		. <b></b>				-		-		-	-				-
Nickel	600 6	0 1,000	1,000 1,000	1,000 10	,000 49	5 80.4	 62.6 - 4.06 -			34.4		-	15.1		3.2 - 0.706 -				34.1		<u> </u>				-		<u> </u>	-   -   -						-
Selenium Silver	400 41 100 11	0 700 0 200	700 700 200 200		000 4.7 000 6.1	7 1.35 0 0.932	4.06			< 0.642	- 0.321		1 - < 0.55 -		0.706 - < 0.534 -	0.267	-		0.761 0.442		<u> </u>	I	-				-		-					
Thallium	8	60	60 80	80 8	100 3.3	0.796	0.831			< 1.28	- 0.64	-	< 1.1	- 0.55	< 1.07	0.535	- 1	-   -	< 1 20.2	- 0.5	. <b></b>		-   -		-	-   -	-	-   -   -	-					-
Vanadium Zinc	400 41 1,000 1,0	0 40 00 3,000	40 50 3,000 5,000 200 200	50 7, 5,000 10	000 107	1 42.9 100 1,073	5720 J-			<1.28 14.2 157		-	278 .	 J			-		20.2 541	J	- -				-	-   -	÷							-
Hexavalent Chromium Mercury	100 10 20 2	0 200 ) 30	200 200 30 30	200 2, 30 3	000 5.7 000 72	1 4.04 8 3.67	 2.94 -	1		0.0568		-	0.207	-   -	163 J  0.0769 -	-	-		 1.24		<u>i - i - </u>				<u> </u>	-  -								-
	1 20 2	. 1 30		55	12	3.07				0.0000		- 1	o.z. !		0.0.00	, -			24				, -				<u>.                                      </u>			<u> </u>				

Notes:

mg/kg = Miligrams per kilogram.

It floss = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

"I The highest detected concentration between primary and field duplicate samples is presented.

"I The highest detected concentration between primary and field duplicate samples spreamed.

"I Constituent was analyzed via multiple methods. The highest detected concentration is presented.

< Constituent is not detected, value presented is the laboration yeaporting limit (RU.)

Data qualifiers presented in the "Qual." column are defined thus: A "U." indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (-) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal size for each constituent that was detected

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 15. Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

	MCP Method 1/3 Soil Standards	Maximum Exposure Point WCSB-22	WCSS-02 WCSS-03 WCS			WCSS-09 WCSS-10	WCSS-11 WCSS-12 WCSS-1	
Analytes	S-1 & S-1 & S-2 & S-2 & S-3 & S-3 & UCL GW-2 GW-3 GW-2 GW-3 GW-2 GW-3	Concentration Concentrations (mg/Kg) 2.5-3	9/3/2013 9/3/2013 9/3/2013  0-0.25 0-0.25 0-0  Result Qual. 1/2 RL	25 0-0.25 0-0.25	5 0-0.25 0-0.25	9/3/2013 9/3/2013  0-0.25 0-0.25  RL Result Qual. 1/2 RL Result Qual. 1/2 RL	9/16/2013 9/16/2013 9/16/201  0-0.25 0-0.25 0-0.25  Result Qual. 1/2 RL Result Qual. 1/2 RL Result Qual.	0.025 0.025 0.025 0.025
Volatile Organic Compounds (mg/Kg) 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	NA NA NA NA NA NA NA NA NA 6 700 6 3,000 6 5,000 10,000	0.0310 0.00332	1000m   1000m   112 1 12   1000m   1000m   112 1 12   11000m   1000m   112 1 12   11000m   1000m   1		172-174- 1700001 00001 170-174- 1700001 00000 176- 100- 100- 100- 100- 100- 100- 100- 100-	1 1000m   100m   11m 11m   11m 11m   11m 11m   11m 11m	100001   000001   110-110   1100001   000001   110-110   1100001   0000001   110-110   0000001   110-110   0000001   110-110   00000001   110-110   00000001   110-110   000000001   110-110   0000000000	
1,2,4-Trimethylbenzene 1,2-Dichlorobenzene 1,3,5-Trimethylbenzene	NA NA NA NA NA NA NA NA 100 300 100 300 100 300 100 300 100 300 100 300 NA NA NA NA NA NA NA NA	0.0579 0.0163						
1,3-Dichlorobenzene 1,4-Dichlorobenzene	100         100         200         500         200         500         5,000           1         80         1         400         1         2,000         10,000	22.7 0.963						
2-Butanone (MEK) 4-Methyl-2-pentanone (MIBK) Acetone	50         400         50         400         50         400         10,000           50         400         50         400         50         400         10,000           50         400         50         400         50         400         10,000	0.197 0.0330						
Benzene**  Bromomethane  Carbon Disulfide	40 40 200 200 400 1,000 10,000 0.5 30 0.5 30 0.5 30 6,000 NA NA NA NA NA NA NA NA	0.430 0.0366						0.0039 - 0.00465 0.0086 - 0.00293 0.00293
Chlorobenzene Chloromethane	3 100 3 100 3 100 10,000 NA NA NA NA NA NA NA	95.0 3.98						
cis-1,2-Dichloroethylene Dichlorodifluoromethane (Freon 12) Ethylbenzene**	0.1 100 0.1 500 0.1 500 5,000 NA NA NA NA NA NA NA NA 5,000 500 500 1,000 1,000 1,000 3,000 10,000	0.548						0.00233 - 0.001465 0.00233 - 0.001465
Isopropylbenzene (Cumene) m+p Xylene** Naphthalene**	NA NA NA NA NA NA NA NA 100 500 100 1,000 100 3,000 10,000 20 500 20 1,000 20 3,000 10,000	0.0596 0.0135						0.0039 - 0.00465 0.0086 - 0.00293 0.0086 - 0.00293
n-Butylbenzene n-Propylbenzene	NA         NA         NA         NA         NA         NA           NA         NA         NA         NA         NA         NA	0.124 0.0213						
o-Xylene** p-lsopropyltoluene (p-Cymene) Styrene	100         500         100         1,000         100         3,000         10,000           NA         NA         NA         NA         NA         NA         NA           4         70         4         300         4         2,000         10,000	0.531 0.0411						0.00233 - 0.001465 0.00233 - 0.001465 0.00233 - 0.001465
Tetrachloroethylene Tetrahydrofuran Toluene**	10 30 10 200 10 1,000 10,000 NA NA NA NA NA NA NA NA NA NA NA NA NA	3.94 0.297						0.0023 - 0.00465 0.0586 - 0.023 0.0023
Trichloroethylene Trichlorofluoromethane (Freon 11)	0.3 30 0.3 60 0.3 60 600 NA NA NA NA NA NA NA	0.402 0.0359						
Vinyl Chloride  Volatile Petroleum Hydrocarbons (mg/kg)  C5-C8 Aliphatics (adjusted)	0.7 1.0 0.7 7 0.7 60 600 100 100 500 500 500 500 5,000	0.0509 0.0085	-   -   -   -   -   -   -   -   -			-   -   -   -   -   -		
C9-C12 Aliphatics (adjusted) C9-C10 Aromatics Extractable Petroleum Hydrocarbons (mg/kg)	1,000 1,000 3,000 3,000 5,000 5,000 20,000 100 100 500 500 500 500 5,000	50.7 4.24						07
C9-C18 Aliphatics C19-C36 Aliphatics C11-C22 Aromatics (Adjusted)	1,000         1,000         3,000         3,000         5,000         5,000         20,000           3,000         3,000         5,000         5,000         5,000         5,000         20,000           1,000         1,000         3,000         3,000         5,000         5,000         5,000	6.890 305 3.64 9.730 612 66 1.870 188 58.6						
2-Methylnaphthalene Acenaphthene	80         300         80         500         80         500         5,000           1,000         1,000         3,000         3,000         5,000         5,000         10,000	0.632 0.250 <0.518 0.259 0.211 0.155 <0.518 NC						0.535 - 0.2675 0.535 - NC
Acenaphthylene Anthracene Benzo(a)anthracene	600         10         600         10         600         10         10,000           1,000         1,000         3,000         3,000         5,000         5,000         10,000           7         7         40         40         300         300         3,000	0.354						0.855 - 0.2675 0.164
Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene	2 2 7 7 30 30 300 7 7 40 40 300 300 3,000 1,000 1,000 3,000 3,000 5,000 5,000 10,000	5.20 1.80 2.41 7.26 2.39 3.94 3.77 1.34 1.43						
Benzo(k)fluoranthene Chrysene	70 70 400 400 3,000 3,000 10,000 70 70 400 400 3,000 3,000 10,000	2.94 1.06 1.54 6.32 1.76 2.37						
Dibenz(a,h)anthracene Fluoranthene Fluorene	0.7         0.7         4         4         30         30         300           1,000         1,000         3,000         3,000         5,000         5,000         10,000           1,000         1,000         3,000         3,000         5,000         5,000         10,000	2.06						
Indeno(1,2,3-cd)pyrene Phenanthrene Pyrene	7 7 40 40 300 300 3,000 500 500 1,000 1,000 3,000 3,000 10,000 1,000 1,000 3,000 3,000 5,000 5,000 10,000	3.92 1.35 1.52 4.44 0.951 0.732 8.42 2.06 3.24						125 166
Polychlorinated Biphenyls (mg/kg) Aroclor-1242	1 1 4 4 4 4 100	2,300 23.3 < 3.61 1.805	<3.65 - 1.825 < 0.439 - 0.2195 < 3.68 -	1.84 < 1.78 - 0.89 < 0.358 -	0.179 < 0.361 - 0.1805 < 0.393 - 0.19		< 0.727 - 0.3635	0.0373 < 0.185 0.0925
Arodor-1248 Arodor-1254 Arodor-1260	1 1 4 4 4 4 100 1 1 1 4 4 4 4 100 1 1 1 4 4 4 4 100	164 2.79 <3.61 - 1.805 1,040 21.0 27.5	<3.65         -         NC         <0.439         -         NC         <3.68         -           <3.65         -         1.825         <0.439         -         0.2195         <3.68         -           25.3         -         -         1.53         -         -         18.9         -	NC         < 1.78	0.179   <0.361   -   0.1805   <0.393   -   0.15   0.179   <0.361   -   0.1805   <0.393   -   0.15   -   1.93   -   -   1.57   -   -	35 <4.1 - 2.05 <38.5 - 19.25 21 92.2	< 0.727         -         NC         -         -         < 0.0746         -           < 0.727         -         0.3635         -         -         -         < 0.0746         -           3.77         J         -         -         -         -         1.13         -	0.0373
Total PCBs  Metals (mg/kg)  Aluminum	1 1 4 4 4 4 100 NA NA NA NA NA NA NA NA	2,300 43.8 27.5	25.3 1.53 18.9 -	- 3.17 2.18 -	-   1.93   -   -   1.57   -   -   -     -     -     -     -     -     -     -     -     -     -       -	21 92.2	3.77 1.13 -	NO
Antimony Arsenic Barium	20 20 30 30 30 30 30 20 20 20 20 50 50 50 1,000 1,000 3,000 3,000 5,000 5,000 10,000	112 5.12					1.96 <0.632 23.8 3.22 3.84 J 73.3 J	0.316 < 0.596 - 0.298 < 0.542 - 0.271 2.5 < 0.57 - 0.285 - 3.46 1.81 4.12 3.68 - 60.5 J - 22.4 J - 101 J - 30.4 J -
Beryllium Cadmium	90 90 200 200 200 200 2 <sub>,000</sub> 70 70 60 60 60 60 60 1,000	1.96 0.556					0.603 0.196 - 9.17 2.77 -	- 0.03
Calcium Chromium Cobalt	NA         NA         NA         NA         NA         NA           100         100         200         200         200         200         200           NA         NA         NA         NA         NA         NA         NA         NA           NA         NA         NA         NA         NA         NA         NA         NA	12,000 5,190				-   -   -   -   -   -		
Copper Iron Lead	NA NA NA NA NA NA NA NA NA NA NA NA NA N	3.500 1,142						
Magnesium Manganese	NA NA NA NA NA NA NA NA NA NA NA NA NA N	4,600 3,030 1,300 681						- 100 0.02 0.03 324
Nickel Selenium Silver	600         600         1,0	495 80.4					495         J            79.4         J           3.28             1.36            1.07            -         <0.632	- 38 J - 11.7 J - 50.5 J - 6.94 J 1.03 - 0.54 - 0.54 J 0.54 - 0.54 J 0.54 - 0.54 J 0.54 - 0.54 J 0.54 J - 0.55 J - 0.5
Thallium Vanadium Zinc	8 8 60 60 80 80 800 400 400 40 40 50 50 7,000	3.30 0.796					<12     -     0.6     -     -     -     2.04     -       54     -     -     -     -     -     291     -       2820     -     -     -     -     -     742     -	13.4
Hexavalent Chromium  Mercury	1,000         1,000         3,000         3,000         5,000         5,000         10,000           100         100         200         200         200         200         200         2,000           20         20         30         30         30         30         30         30	10,000					2820 742 - 174 J 1.77 J 61 J	

Notes:

mg/kg = Milligrams per kilogram.

It bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been desired at least once among relevant samples are presented.

" = The highest detected concentration between primary and field duplicate samples is presented.

" = Constituent was analyzed via multiple methods. The highest detected concentration is presented.

< = Constituent is not detected; value presented is the laboration yeaporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "Us" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A "Dus" () or minus () sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire discosal site for each constituent that was detected

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by N°C).

Method 15.1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

	MCP Method 1/3 Soil Standards	Maxim Detect	Exposure Point	WCSS-18 9/16/201	WCSS-19 3 9/16/2013	WCSS-20 9/16/2013	WCSS-21 9/16/2013	WCSS-22 9/16/2013	WCS 9/16	S-23 WCSS-2 /2013 9/16/201			WCSS 9/16/2		VCSS-27 V16/2013		CSS-28 16/2013	WCSS-29 9/16/2013	WCSS-30 9/16/2013	WCSS-31 9/16/2013		WCSS-32 9/16/2013	WCSS-33 9/16/2013
Analytes	S-1 & S-1 & S-2 & S-2 & S-3 & S-3 & GW-2 GW-3 GW-2 GW-3 GW-2 GW-3 GW-2 GW-3	Concentr	ration Concentrations	0-0.25* Result Qual.	0-0.25	0-0.25	0-0.25	0-0.25	0-0	.25 0-0.25 al. 1/2 RL Result Qual.	0-0.1	25	0-0.2 Result Qual	5	0-0.25 Qual. 1/2 RL	(	)-0.25	0-0.25	0-0.25 sult Qual. 1/2 RL	0-0.25		0-0.25 Qual. 1/2 RL	0-0.25 Result Qual. 1/2 RL
Volatile Organic Compounds (mg/Kg)										<u> </u>	·												
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	NA NA NA NA NA NA 6 700 6 3,000 6 5,000	NA 0.031 10,000 3.23					< 0.0023 - 0.00115 < 0.0023 - 0.00115		< 0.0977 - < 0.0977 -	- NC - 0.04885	< 0.00514 < 0.00514	0.00257 0.00257		NC < 0.0937 0.0695 < 0.0937	NC 0.04685	< 0.00239 < 0.00239	- 0.001195 - - 0.001195 -						< 0.004 - 0.002 < 0.004 - 0.002
1,2,4-Trimethylbenzene	NA NA NA NA NA NA	NA 0.057					< 0.0023 - 0.00115	+-+-	< 0.0977 -	- 0.04885	- < 0.00514	0.00257		NC < 0.0937	- 0.04685	< 0.00239	- 0.001195 -	- <del>                                    </del>		<del>                                     </del>			< 0.004 - 0.002
1,2-Dichlorobenzene	100 300 100 300 100 300	10,000 2.06	0.103			1 - 1 -	< 0.0023 - 0.00115	-   -   -	< 0.0977 -	- 0.04885	< 0.00514	0.00257		0.0695 < 0.0937	0.04685	< 0.00239	- 0.001195	-   -   -   -	- 1-1-	-   -		-   -	< 0.004 - 0.002
1,3,5-Trimethylbenzene	NA NA NA NA NA	NA 0.019					< 0.0023 0.00115	-   -   -	< 0.0977 -	- NC	< 0.00514	0.00257		NC < 0.0937	NC	< 0.00239	- 0.001195 -		-				< 0.004 - 0.002
1,3-Dichlorobenzene	100 100 200 500 200 500	5,000 22.7					< 0.0023 0.00115		< 0.0977 -	- 0.04885	- < 0.00514	0.00257		0.0695 < 0.0937	0.04685	< 0.00239	- 0.001195						< 0.004 - 0.002
1,4-Dichlorobenzene 2-Butanone (MEK)	1 80 1 400 1 2,000 50 400 50 400 50 400	10,000 27.5 10,000 0.19					< 0.0023 - 0.00115 < 0.023 - 0.0115		< 0.0977 - < 0.977 -	- 0.04885	< 0.00514 < 0.0514	0.00257 0.0257	< 0.139 - < 1.39 -	0.0695 <b>1.07</b> NC < 0.937	NC	< 0.00239 < 0.0239	- 0.001195 - - 0.01195						< 0.004 - 0.002 < 0.04 - 0.02
4-Methyl-2-pentanone (MIBK)	50 400 50 400 50 400	10,000 0.79					< 0.023 - 0.0115		< 0.977 -	NC	- < 0.0514	0.0257		NC < 0.937	NC	< 0.0239	- 0.01195 -						< 0.04 - 0.02
Acetone	50 400 50 400 50 400	10,000 0.20				-   -   -   -	< 0.23 - 0.115		< 9.77 -	- NC	< 0.514	NC		NC < 9.37	NC	< 0.239	- 0.1195	-   -   -   -	-   -   -				< 0.4 - 0.2
Benzene**	40 40 200 200 400 1,000	10,000 0.43				-   -	< 0.0023 0.00115		< 0.0977 -	- 0.04885	< 0.00514	0.00257		0.0695 < 0.0937	0.04685	< 0.00239	- 0.001195	-   -   ·	-   -   -	-   -			< 0.004 0.002
Bromomethane	0.5 30 0.5 30 0.5 30	6,000 0.047					< 0.0046 - 0.0023		0.0474		< 0.0103	0.00515		NC < 0.187	- NC	< 0.00479	- 0.002395 -		-   -   -				< 0.00799 0.003995
Carbon Disulfide	NA NA NA NA NA	NA 0.005 10,000 95.0				-   -   -   -	< 0.0023 0.00115	_   -   -	< 0.0977 -	- NC	- < 0.00514	0.00257		NC < 0.0937	NC	< 0.00239	- 0.001195 - - 0.001195 -		-   -				< 0.004 - 0.002
Chlorobenzene Chloromethane	3 100 3 100 3 100 NA NA NA NA NA NA NA	NA 0.053					< 0.0023 - 0.00115 < 0.0046 - 0.0023		< 0.0977 - 0.0532 -	- 0.04885	< 0.00514 < 0.0103	0.00257 0.00515		0.0695 < 0.0937 NC < 0.187	0.04685 NC	< 0.00239 < 0.00479	- 0.001195 - - 0.002395 -						< 0.004 - 0.002 < 0.00799 - 0.003995
cis-1.2-Dichloroethylene	0.1 100 0.1 500 0.1 500	5,000 0.54					< 0.0023 - 0.00115		0.0363		- < 0.00514 -	0.00257		- < 0.0937	- 0.04685	< 0.00239	- 0.002395 -	-   -   -	-   -   -			-   -	< 0.004 - 0.002
Dichlorodifluoromethane (Freon 12)	NA NA NA NA NA	5,000 0.12				-   -   -	< 0.0046 0.0023	-   -   -	0.12	-   -   -   -	< 0.0103	0.00515		NC < 0.187	- 0.0935	< 0.00479	0.002395 -		-   -   -				< 0.00799 0.003995
Ethylbenzene**	500 500 1,000 1,000 1,000 3,000	10,000 0.32			[ - [		< 0.0023 0.00115		< 0.0977 -	- 0.04885	< 0.00514	0.00257		0.0695 < 0.0937	0.04685	< 0.00239	- 0.001195		- [ - [ -				< 0.004 - 0.002
Isopropylbenzene (Cumene)	NA NA NA NA NA	NA 0.059				-   -   -   -	< 0.0023 0.00115	-   -   -	< 0.0977 -	- 0.04885	< 0.00514	0.00257		NC < 0.0937	0.04685	< 0.00239	- 0.001195	- - -	-   -   -			-   -	< 0.004 - 0.002
m+p Xylene** Naphthalene**	100 500 100 1,000 100 3,000 20 500 20 1,000 20 3,000	10,000 1.43 10,000 11.2		1			< 0.0046 - 0.0023 < 0.023 - 0.0115		< 0.195 - 0.116	- 0.0975	< 0.0103 <b>0.162</b>	0.00515		0.139 < 0.187 0.2605 <b>1.03</b>	- 0.0935 	< 0.00479 < 0.0239	- 0.002395 UJ 0.01195						< 0.00799 - 0.003995 < 0.04 UJ 0.02
n-Butvlbenzene	20 500 20 1,000 20 3,000 NA NA NA NA NA NA	NA 0.12-		<del>                                     </del>			< 0.0023 - 0.00115		< 0.0977 -	J - 0.04885	0.162 < 0.00514	0.00257		0.2605 1.03 0.0695 < 0.0937	- 0.04685	< 0.0239	- 0.001195 -	+ + + + + + + + + + + + + + + + + + + +	-   -   -	+ - + -			< 0.004 UJ 0.002 < 0.004 - 0.002
n-Propylbenzene	NA NA NA NA NA	NA 0.13		-   -			< 0.0023 - 0.00115	-   -   -	< 0.0977 -	- 0.04885	- < 0.00514	0.00257		0.0695 < 0.0937	- 0.04685	< 0.00239	- 0.001195	-   -   -   -	-   -   -			-   -	< 0.004 - 0.002
o-Xylene**	100 500 100 1,000 100 3,000	10,000 0.53	1 0.0411		<u> </u>	-   -   -   -	< 0.0023 0.00115		< 0.0977 -	- 0.04885	< 0.00514	0.00257	< 0.139 -	0.0695 < 0.0937	0.04685	< 0.00239	- 0.001195	<u> </u>	- <u>                                    </u>	- 1-		- 1 -	< 0.004 0.002
p-Isopropyltoluene (p-Cymene)	NA NA NA NA NA NA	NA 0.23					< 0.0023 - 0.00115		< 0.0977 -	- 0.04885	< 0.00514	0.00257		0.0695 < 0.0937	0.04685	< 0.00239	- 0.001195 -		-   -   -				< 0.004 - 0.002
Styrene	4 70 4 300 4 2,000	10,000 1.87 10,000 3.94		-   -	-   -   -		< 0.0023 - 0.00115 < 0.0023 - 0.00115	_   -   -	< 0.0977 -	- 0.04885	- < 0.00514	0.00257		0.0695 < 0.0937	0.04685	< 0.00239	- 0.001195	- - -	-   -   -		-   -	-   -	< 0.004 - 0.002
Tetrachloroethylene Tetrahydrofuran	10 30 10 200 10 1,000 NA NA NA NA NA NA NA	10,000 3.94 NA 6.67		<del>                                     </del>			< 0.0023 - 0.00115 < 0.046 - 0.023		<b>1.59</b> - < 1.95 -	- 0.975	< 0.00514 < 0.103	0.00257 0.0515		- <b>0.0923</b> 1.39 < 1.87	- 0.935	<b>0.00194</b> < 0.0479	- 0.02395		-   -   -	<u> </u>			< 0.004 - 0.002 < 0.0799 - 0.03995
Toluene**	500 500 1,000 1,000 2,000 3,000	10,000 1.11					< 0.0023 - 0.00115		< 0.0977 -	- 0.04885	- < 0.00514	0.00257		0.0695 < 0.0937	- 0.04685	< 0.00239	- 0.001195 -					-   -	< 0.004 - 0.002
Trichloroethylene	0.3 30 0.3 60 0.3 60	600 0.40				-   -   -	< 0.0023 0.00115	-   -   -	0.11	-   -   -   -	< 0.00514	0.00257		< 0.0937	0.04685		- 0.001195 -	-   -   -	-   -   -			-	< 0.004 0.002
Trichlorofluoromethane (Freon 11)	NA NA NA NA NA	NA 0.09			[ - [		< 0.0046 0.0023		0.0379		< 0.0103	0.00515		NC < 0.187	- NC	< 0.00479	0.002395 -		- [ - [ -				< 0.00799 0.003995
Vinyl Chloride	0.7 1.0 0.7 7 0.7 60	600 0.050	9 0.0085		-	-   -	< 0.0023 0.00115		0.0509	-   -   -   -	< 0.00514	0.00257	< 0.139	NC < 0.0937	- 0.04685	< 0.00239	0.001195 -		<u> </u>	-   -		I - I -	< 0.004 0.002
Volatile Petroleum Hydrocarbons (mg/kg) C5-C8 Aliphatics (adjusted)	100 100 500 500 500 500	5.000 79.6	5.57			, ,	0.0552		0.411		0.127		0.697	0.0484		< 0.267	- 0.1335 -						0.053
C9-C12 Aliphatics (adjusted)	1,000 1,000 3,000 3,000 5,000 5,000	20,000 50.7					0.0591		< 2.64	1.32	- < 1.52 -	0.76	< 1.32 -	<b>0.0484</b> 0.66 < 0.285	- 0.1425	< 0.267	- 0.1335 -		-				<pre>0.053</pre>
C9-C10 Aromatics	100 100 500 500 500 500	5,000 13.6				-   -   -   -	0.319 J		2.34	J	0.867	-	0.608	0.58		1.21	J	-   -   -	-   -   -				0.429 J
Extractable Petroleum Hydrocarbons (mg/kg)																							
C9-C18 Aliphatics	1,000 1,000 3,000 3,000 5,000 5,000	20,000 6,89				-   -	3.73 J -	-   -   -	59	J	6.58	-	2.83	- 23.5	J -		UJ 2.56 -	-   -   -	-   -   -				4.6 J
C19-C36 Aliphatics	3,000 3,000 5,000 5,000 5,000 5,000	20,000 9,73				-   -   -   -	54.4 J		221		226		51.1	- 160	J -	14.3	J	-   -   -	-   -				165 J
C11-C22 Aromatics (Adjusted) 2-Methylnaphthalene	1,000 1,000 3,000 3,000 5,000 5,000 80 300 80 500 80 500	10,000 1,870 5,000 0.633					33.1 < 0.495 UJ 0.2475		101 - 0.133		174 0.168		28.5 < 0.521	8.84 0.2605 <b>0.632</b>		<b>54.4</b> < 0.512						-   -	74.8 0.125 J
Acenaphthene	1,000 1,000 3,000 3,000 5,000 5,000	10,000 0.03					< 0.495 UJ NC	+-	0.176	<u> </u>	- 0.211 -		< 0.521 -	NC < 0.565	NC	< 0.512	UJ NC -						< 0.55 UJ NC
Acenaphthylene	600 10 600 10 600 10	10,000 0.35					< 0.495 UJ 0.2475		0.354	,	- < 0.597 -	0.2985	< 0.521	0.2605 < 0.565	- 0.2825	0.157	J	-   -   -	-   -   -			-   -	< 0.55 UJ 0.275
Anthracene	1,000 1,000 3,000 3,000 5,000 5,000	10,000 0.68				-   -   -   -	0.193 J	-   -   -	0.397	J	0.67	- i -	0.101	< 0.565	0.2825	0.357	J	-   -   -	-   -   -	-   -		-   -	0.203 J
Benzo(a)anthracene	7 7 40 40 300 300	3,000 4.08					0.706 J		2	J	4.08	-	0.424	< 0.565	0.2825	1.29	J		-   -   -				1.27 J
Benzo(a)pyrene	2 2 7 7 30 30	300 5.20				-   -   -   -	1.17 J		3		5.2		0.954	- 0.0936		1.66	J	-   -   -	-   -				1.63 J
Benzo(b)fluoranthene Benzo(q,h,i)perylene	7 7 40 40 300 300 1,000 1,000 3,000 3,000 5,000 5,000	3,000 7.26 10,000 3.77					1.34 J 0.876 J	+-+-	3.18 2.45		- 7.26 - 3.77 -	+	1.11 1.13	<b>0.164</b> < 0.565	- 0.2825	2.1 1.41	J						2.08 J 2.24 J
Benzo(k)fluoranthene	70 70 400 400 3,000 3,000	10,000 2.94					0.652 J -		1.43	,	- 2.94 -		0.529	- < 0.565	- 0.2825	1.14	J	-   -   -	-   -   -			-   -	1.07 J
Chrysene	70 70 400 400 3,000 3,000	10,000 6.32					0.999 J		2.53	J	6.32	· i -	0.627	0.119	-   -	1.55	J		-   -   -				1.5 J
Dibenz(a,h)anthracene	0.7 0.7 4 4 30 30	300 2.06				-   -   -   -	0.644 J	-   -   -	1.24	J	2.06		0.752	< 0.565	0.2825	0.881	J	-   -   -	-   -   -	-   -			1.27 J
Fluoranthene Fluorene	1,000 1,000 3,000 3,000 5,000 5,000 1,000 1,000 3,000 3,000 5,000 5,000	10,000 10.6 10,000 0.37				-   -   -   -	1.9 J 0.163 J		2.78 0.302	]	10.6 0.375		0.727 0.175	0.238 0.255		1.93 0.187	J	-   -   -				-   -	1.46 J 0.322 J
Indeno(1.2.3-cd)pyrene	7 7 40 40 300 300	3,000 3.92					0.163 J		2.45		- 3.92 -	-	1.11 -	0.255 < 0.565	0.2825	1.44	]		_				0.322 J 1.81 J
Phenanthrene	500 500 1,000 1,000 3,000 3,000	10,000 4.44					0.929 J		1.29	,	- 4.44	-	< 0.521	0.2605 < 0.565	- 0.2825	1.22	J	-   -   -	-   -   -				0.892 J
Pyrene	1,000 1,000 3,000 3,000 5,000 5,000	10,000 8.42	2.06				1.27 J		3.16	J	8.42	-	0.698	0.19	-	1.94	J	-   -   -					1.51 J
Polychlorinated Biphenyls (mg/kg)		400	00.0	2011		.0.400	0.074		.005	1 0.475 .0704	0.007		.0.0040		0.0070	.0.0000		77   0005	057 1 104705		.0.0050		.000
Aroclor-1242 Aroclor-1248	1 1 4 4 4 4	100 2,300 100 0.200		<b>0.241</b> J < 0.181	- <b>0.1</b> - 0.0905 < 0.177 -	- < 0.189 - 0.094 0.0885 < 0.189 - 0.094		< 0.705 - 0.3525 < 0.705 - NC	< 0.35 - < 0.35 -	- 0.175 < 0.734 - 0.175 < 0.734	0.367 < 20.2 NC < 20.2	10.1 NC	< 0.0349 < 0.0349	0.01745 < 0.0744 0.01745 < 0.0744	- 0.0372 - 0.0372	< 0.0698 < 0.0698	- 0.0349 < 1. - 0.0349 < 1.		357 - 0.1785 357 - 0.1785		< 0.0352 < 0.0352	0.0176 0.0176	< 0.39 - 0.195 < 0.39 - 0.195
Aroclor-1254	1 1 4 4 4 4	100 164		< 0.181	0.0905 < 0.177 -	1.0885 < 0.189 0.0945		< 0.705 - 0.3525	< 0.35 -	0.175 < 0.734	0.367 164			0.01745 < 0.0744	- 0.0372	< 0.0698			483		- < 0.0352		< 0.39 0.195
Aroclor-1260	1 1 4 4 4 4	100 1,04	0 21.0	2.25 J	- 0.529	- 0.997	2.03	6.39	5.29 -	- – 5.76 J		10.1	0.287 J	- 0.813	J -	0.133	13	i.8 J - <0	.357 - 0.1785	-   -	0.309	J -	5.03 J
Total PCBs	1 1 4 4 4 4	100 2,30	0 43.8	2.491	- 0.629	- 0.997	2.03	6.39	5.29 -	5.76	- 164 -	-	0.287	0.813	-   -	0.133	13	i.8 0.	483		- 0.309	-   -	5.03
Metals (mg/kg)	NA NA NA NA NA NA	NA 14.00	0 9.240		, ,				,			-					-						
Aluminum	NA NA NA NA NA NA 20 20 30 30 30 30	300 112		18.5	- < 0.569 -		4.66	2.9	112	0.481 -	- 3.02 -	+	< 0.531 -	0.2655 < 0.499	- 0.2495	< 0.488	- 0.244 <b>5</b> /		 1.504 0.252	< 0.512 -	0.256 < 0.484	- 0.242	5.34
Arsenic	20 20 20 20 50 50	500 74.1		8.7	- 5.08 -	- 29.8	5.91	6.29	34.4	6.81	- 8.97 -	+	1.8 -	- 6.33	- 0.2455	2.45			.47	2.36 -	- 5.24		19.8
Barium	1,000 1,000 3,000 3,000 5,000 5,000	10,000 4,75	0 217	990 J	- 65.3 J	- 310 J -	75.5 J	124 J	4,750	J 161 J	<b>238</b> J	T -	25.7 J	69.9	J -	28.9	J - 1	78 J - 3	7.1	26.2	45.6	-   -	208 – –
Beryllium	90 90 200 200 200 200	2,000 1.96	0.556	0.784	0.803	- 1.14	0.461	1.96	1.21 .	0.416	0.593	I -	0.197	0.13	-   -	0.217	0.3		366	0.238	0.348	- I -	0.605
Cadmium	70 70 60 60 60 60 NA NA NA NA NA NA	1,000 26.3		13.6	0.697	- 18.5	4.53	3.15	14.6	4.16	10.9	<u> </u>	0.282	1.94	-   -	0.783			346	0.206	0.981	-   -	7.21 – –
Calcium	NA NA NA NA NA NA	NA 12,00				 - 48 J -	305 J -		119	- i -   - i-									 9.1				109
Chromium Cobalt	100 100 200 200 200 200 NA NA NA NA NA NA NA			54.4 J	- 12.5 J	·····		66.7 J	<del> </del>	·	/1.3 J			- 213		30.6			9.1		49.6 		
Copper	NA NA NA NA NA NA								<del> </del>	-   -   -   -									- + - + -				
Iron	NA NA NA NA NA	NA 120,0								-   -   -   -			- 1 -			- 1	- 1 - 1 -	-   -   -	-   -   -	-   -		-	
Lead	200 200 600 600 600 600	6,000 13,10	00 873	3,400		- 3,280	418	668	13,100					1,300		143	1,2	180 – – 7	8.2 J -	<b>52.1</b> J	202	J -	1,470 J -
Magnesium	NA NA NA NA NA NA					-   -   -   -	-   -   -									-							
Manganese	NA NA NA NA NA NA				-   -   -	 - 256 J -			109		 - 101 J				-   -	- 24.0			 8.2				
Nickel Selenium	600 600 1,000 1,000 1,000 1,000 400 400 700 700 700 700			130 J 1.58	13.1 j	- 256 J - 1.2845 2.37	100 J 1.93	129 J 1.38	4.77		101 J			288 3.04	J -	34.8 0.499	J - 13	30 J - 1 27 0.	8.2 869 J	11.8 0.667 J	54.7 1.24	 J -	178 – – 2.89 J –
Silver	100 100 200 200 200 200			1.29		1.2845 <b>0.714</b>	0.825	1.38 0.783	2.13	2.16 0.855 0.535 0.505	- 2.13 - - 1.11 -	-	< 0.531 -	3.04 0.2655 < 2.49			2. - 0.244 <b>0.</b> 8	191 –	1.504 0.252		0.256 < 0.484		2.89 J - 1.77
Thallium	8 8 60 60 80 80			< 1.08	0.54 < 1.14 -	0.57 < 1.16 - 0.58	< 0.954 0.477	< 0.977 0.4885	< 1.07 -	- 0.535 <b>0.505</b>	- <1.18 -	0.59	< 1.06 -	0.53 0.418		< 0.976	0.488 <1	.16 0.58 <	1.01 0.505	< 1.02 -	0.51 < 0.968		<1.15 - 0.575
Vanadium	400 400 40 40 50 50	7,000 291	42.0	25.1	- 20.9	- 34.8	20.5	22.4	46.6	96.6	57.6		14.6	102		25.1	41	.2 2	0.3	21.4	37.7	-   -	67
Zinc	1,000 1,000 3,000 3,000 5,000 5,000	10,000 10,00		3,190	- 213	- 1,950			10,000 -				92 :	544		177		180 – – 9		62.5 J	- 222		1,740 J -
Hexavalent Chromium	100 100 200 200 200 200		4.04			-   -   -   -	<del>                                     </del>		- :	1,350 J - 4.85 J							 J - 5.		-   -   -	- 1- 1			-   -   -
Mercury	20 20 30 30 30 30	300 /2.8	3.0/	72.8 J	- 0.363 J	- 3.65 J	1.3 j J j	4.40 J	0.00	4.85 į J	- 3.1 j J		0.131 j J	: U.664	J -	U.1/8	J 5.	57 J - 0.0	mı   -   -	0.0750	0.177		2.65

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by NCC).

Method 15.1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

		MCP Method 1/2	3 Soil Stand	ards	Maximum Detected	Exposure Poin	WCSS- 9/16/20		WCSS-35 9/16/2013		CSS-36	WCSS-37 9/16/2013		CSS-38 6/2013	WCSS-39 9/16/2013		VCSS-40 16/2013	WCS 9/16/2		WCSS-42 9/16/2013	WCS 9/16/2		WCSS-4		WCSS-45 9/16/2013		<b>SS-46</b> /2013	WCSS-47 9/16/2013	WCSS-47 11/22/2013	WCSS-48 9/16/2013	WCSS-49 11/22/2013
Analytes		1 & S-2 & S- N-3 GW-2 G			Concentration (mg/Kg)	on Concentration:	0-0.2 Result Qual.	25	0-0.25* Result Qual 1		0-0.25 Qual. 1/2 RL Resu	0-0.25	0	0-0.25	0-0.25 Result Qual. 1/2 R		0-0.25	0-0	.25	0-0.25	0-0	.25	0-0.25	i	0-0.25 Result Qual. 1/2 RL	0-	0.25	0-0.25 Result Qual. 1/2 RL	0-0.25	0-0.25	0-0.25  Result Qual. 1/2 RL
Volatile Organic Compounds (mg/Kg)			W-3 GW-	2 GW-3						1/2 RL Result	qual. : 1/2 RL Resu	it Qual. 1/2	Z RL Result Q	(ual.   1/2 RL	Result Qual. 1/2 R	i i		Result Qua	II. 1/2 KL	Result Qual. 1/2 RL	Result Qua				Result Qual. 1/2 RL	Result Qui	al. 1/2 RL	Result Qual. 1/2 RL	Result Qual. 1/2 RL	Result Qual. 1/2 RL	Result Qual. 1/2 RL
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	NA 1	IA NA 1	NA NA	NA NA 5,000 10,00	0.0310	0.00332 0.152	< 0.00415 < 0.00415	0.002075		NC 0.0565				=   =		< 0.00249 < 0.00249	- 0.001245 - 0.001245					- <	0.00329 0.00329	0.001645 0.001645							
1,2,4-Trimethylbenzene 1,2-Dichlorobenzene	NA 1	IA NA N	NA NA	NA NA 300 10.00	0.0579 0 2.06	0.0163 0.103	< 0.00415 < 0.00415			0.0565 0.0565		- :				< 0.00249 < 0.00249	- 0.001245 - 0.001245		-				0.00329 0.00329	0.001645 0.001645			-				
1,3,5-Trimethylbenzene	NA I	IA NA N	VA NA		0.0197	0.0036	< 0.00415	0.002075	< 0.113 -	NC			-   -	=   -	-   -   -	< 0.00249	- 0.001245		<u> </u>			- <	0.00329	0.001645					_   -   -		
1,3-Dichlorobenzene 1,4-Dichlorobenzene	100 1	00 200 5 10 1 4		500 5,00 2,000 10,00	0 22.7 10 27.5	0.963 1.21	< 0.00415 < 0.00415		< 0.113 - 0 0.0664 -	0.0565						< 0.00249 < 0.00249	- 0.001245 - 0.001245		<del>  -</del> -				0.00329 0.00329	0.001645 0.001645							
2-Butanone (MEK) 4-Methyl-2-pentanone (MIBK)	50 4 50 4			400 10,00 400 10,00	0.197 0.0664	0.0330 0.0184	< 0.0415 < 0.0415		0.197 J <1.13 -	 NC		-		-   -		< 0.0249 < 0.0249	- 0.01245 - 0.01245				-   -		< 0.0329 < 0.0329	0.01645 0.01645			-				
Acetone	50 4	00 50 4	00 50	400 10,00	0.207	0.12	< 0.415	NC ·	<11.3 -	NC -						< 0.249	- 0.1245				- 1-	-	< 0.329	0.1645							
Benzene** Bromomethane	40 4 0.5				0.430 0 0.0474	0.0366 0.00577	< 0.00415 < 0.0083		<b>0.0453</b> < 0.227	 NC						< 0.00249 < 0.00499	- 0.001245 - 0.002495						0.00329 0.00658	0.001645 0.00329							
Carbon Disulfide Chlorobenzene	NA 1			NA NA 100 10,00	0.00556 0 95.0	0.00181 3.98	< 0.00415 < 0.00415			NC 0.0565				-   -		< 0.00249 < 0.00249	- 0.001245 - 0.001245						: 0.00329 : 0.00329	0.001645 0.001645			-				
Chloromethane	NA I	IA NA N	NA NA	NA NA	0.0532	0.00611	< 0.0083	0.00415	< 0.227	NC						< 0.00499	- 0.002495				- 1-	- <	0.00658	0.00329							
cis-1,2-Dichloroethylene Dichlorodifluoromethane (Freon 12)	0.1 1 NA 1			500 5,00 NA 5,00	0 0.548 0 0.120	0.0387 0.0272	< 0.00415 < 0.0083			0.0565 0.1135				=   =		< 0.00249 < 0.00499	- 0.001245 - 0.002495						: 0.00329 : 0.00658	0.001645 0.00329					+ = + = + =		
Ethylbenzene** Isopropylbenzene (Cumene)	500 5 NA 1		000 1,00 NA NA		0.322 0.0596	0.0382 0.0135	< 0.00415 < 0.00415		0.0986 - 0.0596 -	-   -	-   -   -		-   -	-   -		< 0.00249 < 0.00249	- 0.001245 - 0.001245		<u> </u>				: 0.00329 - : 0.00329 -	0.001645 0.001645			-				
m+p Xylene**	100 5	00 100 1,	000 100	3,000 10,00	1.43	0.148	< 0.0083	0.00415	0.0989			1 - 1 -		-   -		< 0.00499	- 0.002495		- <del> </del> -				< 0.00658	0.00329							
Naphthalene** n-Butylbenzene	20 5 NA 1	00 20 1,i	000 20 NA NA	3,000 10,00 NA NA	0.124	0.766 0.0213	0.105 - < 0.00415			0.2595 – 0.0565 –						< 0.0249 < 0.00249	- 0.01245 - 0.001245					- <	0.309 0.00329	0.001645							
n-Propylbenzene	NA I	IA NA N	NA NA	NA NA	0.136	0.0213	< 0.00415	0.002075	0.0342			-	-   -	-   -		< 0.00249	- 0.001245		ļ -		-   -		< 0.00329	0.001645	-   -   -						
o-Xylene** p-Isopropyltoluene (p-Cymene)	100 5 NA 1	IA NA N	NA NA	NA NA	0.531 0.236	0.0411 0.0262	< 0.00415 < 0.00415	0.002075	0.236 -	0.0565				<u> </u>		< 0.00249 < 0.00249	- 0.001245 - 0.001245						: 0.00329 : 0.00329	0.001645 0.001645	_   _   _	_ = =					
Styrene Tetrachloroethylene	4 10	0 4 3 0 10 2		2,000 10,00 1,000 10,00	0 1.87 0 3.94	0.119 0.297	< 0.00415 < 0.00415		1.87 - 0.0594 -			-				< 0.00249 < 0.00249	- 0.001245 - 0.001245						0.00329 - 0.00511	0.001645							
Tetrahydrofuran	NA I	IA NA N	NA NA	NA NA	6.67	0.608	< 0.083	0.0415	< 2.27 -	1.135				-   -		< 0.0499	- 0.02495	- : -			-   -		< 0.0658	0.0329					-   -   -		
Toluene** Trichloroethylene	500 5 0.3			0 3,000 10,00 60 600		0.102 0.0359	< 0.00415 < 0.00415		<b>0.0785</b> - < 0.113 - 0	0.0565						< 0.00249 < 0.00249	- 0.001245 - 0.001245						0.00329 0.00329	0.001645 0.001645							
Trichlorofluoromethane (Freon 11) Vinyl Chloride	NA 1		NA NA 7 0.7			0.0135 0.0085	< 0.0083 < 0.00415			 NC		-		-   -		< 0.00499 < 0.00249	- 0.002495 - 0.001245						< 0.00658 < 0.00329	0.00329 0.001645			-				
Volatile Petroleum Hydrocarbons (mg/kg)	0.7			00 000						10						i i	- 0.001240							0.001043							
C5-C8 Aliphatics (adjusted) C9-C12 Aliphatics (adjusted)	100 1 1,000 1,	00 500 5 000 3,000 3,		500 5,00 0 5,000 20,00	0 79.6 10 50.7	5.57 4.24	0.0979 - < 1.47		<b>0.0636</b> < 0.27 (	0.135		- :		-   -		0.0434 0.0707					-   -		<b>0.185</b> < 1.26	0.63							
C9-C10 Aromatics	100 1	00 500 5	00 500	500 5,00	0 13.6	1.69	0.609 J	-	0.334	1	-			-   -	-   -   -	0.338	J -	- i -	i -	-   -   -	- İ -	-	0.588	-	-   -   -	-   -	-   -		- 1 - 1 -	-   -   -	
Extractable Petroleum Hydrocarbons (mg/kg) C9-C18 Aliphatics	1,000 1,				0 6,890	305	3.63 J		2.55		-		[	-   -	-   -   -	13.5	J -	-   -	· [ -	-   -   -	- [ -		36.5	-	-   -   -	-   -	-   -	-   -   -	-   -   -	-   -   -	
C19-C36 Aliphatics C11-C22 Aromatics (Adjusted)	3,000 3, 1,000 1,			0 5,000 20,00 0 5,000 10,00	0 9,730 0 1,870	612 188	288 J 87.3 -		64.6 78.9							148 66.3	J -						441 121	-							
2-Methylnaphthalene	80 3	00 80 5	00 80	500 5,00	0.632	0.250	0.157	-	0.126 -			-		-   -		< 0.488	UJ 0.244 UJ NC		-			-	0.32	-							
Acenaphthene Acenaphthylene	1,000 1, 600	0 600 1	000 5,00 10 600	0 5,000 10,00 10 10,00	0.211 0 0.354	0.155 0.264	< 0.574 < 0.574	0.287		NC 0.2595				=   =		< 0.488 < 0.488	UJ NC UJ 0.244					-	<b>0.0785</b> < 0.471	0.2355							
Anthracene Benzo(a)anthracene	1,000 1,	000 3,000 3,0 7 40 4		0 5,000 10,00 300 3,00	0.686 0 4.08	0.293 1.31	0.241 - 1.62 -		0.686 2.88							0.205 1.41	J -					-	0.321 1.37	-							
Benzo(a)pyrene	2	2 7	7 30	30 300	5.20	1.80	2.31	-	2.55					-   -		1.74	J -	- : -			-   -	-	3.41	-			-   -		-   -   -		
Benzo(b)fluoranthene Benzo(g,h,i)perylene	1,000 1,	7 40 4 000 3,000 3,		300 3,00 0 5,000 10,00	0 7.26 10 3.77	2.39 1.34	3.74 - 2.04 -		4.02 - 1.64 -							2.11 1.34	J -					-	2.9 2.02	-							
Benzo(k)fluoranthene Chrysene	70 70	<u> </u>		0 3,000 10,00 0 3,000 10,00	0 2.94 0 6.32	1.06 1.76	1.44 - 2.1 -		1.93 - 4.23 -			-		-   -		1.08 1.6	J -				-   -	-	1.55 2.01	-							
Dibenz(a,h)anthracene	0.7 (	.7 4	4 30	30 300	2.06	0.908	1.31 -	-	1.01					-   -		0.793	J -	- : -			-   -	-	1.26	-			-   -		-   -   -		
Fluoranthene Fluorene	1,000 1, 1,000 1,			0 5,000 10,00 0 5,000 10,00	0 10.6 0 0.375	2.16 0.239	1.93 – 0.165 –		2.69 0.135							1.55 0.196	J -	-   -				-	2.05 0.284	-							
Indeno(1,2,3-cd)pyrene Phenanthrene	7 500 5	7 40 4 00 1,000 1,		300 3,00 0 3,000 10,00	0 3.92 10 4.44	1.35 0.951	2.17 - 0.926 -		1.75 – 0.979 –	1	-   -   -			-   -		1.34 0.655	J -					-	2.09 0.896		-   -   -	- :	-   -		-   -   -		
Pyrene		000 3,000 3,		0 5,000 10,00	0 8.42	2.06	1.9 -		4.12 -	= = +		1 - 1 -		-   -			j -		<u> </u>		- 1 -	1 -	1.95	† -			-				
Polychlorinated Biphenyls (mg/kg) Aroclor-1242	1	1 4	4 4	4 100	2,300	23.3	< 0.391	0.1955	0.138 J	< 0.361	- 0.1805	-   ·		-   -		< 0.347	- 0.1735	< 3.68 -	1.84		< 16.7	8.35	1.74 J	-	0.189 J	-   -			< 0.181 0.0905		< 0.383 - 0.1915
Arocior-1248 Arocior-1254	1	1 4	4 4 4 4	4 100 4 100	0.206 164	0.10 2.79	< 0.391 - < 0.391 -			0.087 < 0.361 0.087 < 0.361	0.1805 0.1805			=   =		< 0.347 < 0.347	- 0.1735 - 0.1735	< 3.68 < 3.68	NC 1.84		< 16.7 - < 16.7 -	NC 8.35	< 0.67 8.32	NC 	< 0.375 - 0.1875 < 0.375 - 0.1875				< 0.181 - 0.0905 < 0.181 0.0905		< 0.383 - 0.1915 < 0.383 - 0.1915
Aroclor-1260	1	1 4	4 4	4 100	1,040	21.0	5.31 J	-	1.41 J	3.3	J		-   -	-   -	-   -   -	3.05	J -	33.4 J	-		173	-	< 0.67 UJ	0.335	5.62 J		-		0.404 J –		1.55 J
Total PCBs Metals (mg/kg)	1	1 4	4 4	4 100	2,300	43.8	5.31 -		1.548	- 3.3	-   -   -	1 - 1	i	-   -	- 1 - 1 -	3.05	- 1 -	33.4		- 1 - 1 -	173	· i	10.06	i -	5.809		- 1 -	- 1 - 1 -	0.404	- 1 - 1 -	1.55
Aluminum Antimony	NA 1				14,000 112	9,240 5.12	2.83 -	-	2.17 -	 - 4.35		-	< - < 0.446	0.223	 < 0.576 - 0.28	- < 0.519	0.2595	 14.9			 16.6	-	 18.5 -	-	 6.32	0.824		2.66		 < 0.492 - 0.246	16.4
Arsenic	20	0 20 2	20 50	50 500	74.1	9.27	10.4 –	-	3.04	- 13.8		-	- 3.52	-   -	2.1	4.33	- 0.2353	11.1			7.74		12.2	-	10.3	7.59 -	-   -	2.1		2.17	9.11
Barium Beryllium	1,000 1, 90 !			0 5,000 10,00 200 2,00	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	217 0.556	114 – 0.524 –	-	58.5 0.231	- 246 - 0.347			- 21.2 - 0.307	-   -	43.6 0.278	83.1 0.344		736 0.481	+		233 0.35	-	376 0.316	-	227 0.451	134 - 0.286 -		13.6 0.146		23.7 0.422	392 0.43
Cadmium Calcium				60 1,00 NA NA		4.52 5,190	4.36 -		1.33	- 16.1		-	- 0.0785 	<u> </u>	0.149	2.3		13.5 -			7.88	-	11.2		14	11.1 -		0.209		0.181	6.1
Chromium	100 1	00 200 2	00 200	200 2,00	0 560	74.1	111 -	-	 25.7 -	- 225	67.4	J	- 7.33		12.9	38.5		122	-	29.1 J	38.5	-	 257	1 -	32.4	13.9 -		8.76		10.2	44.1
Cobalt Copper		IA NA M		NA NA NA NA				-							-									ļ:l							
Iron	NA 1	IA NA N	NA NA	NA NA	120,000	52,400		-	 247 J	 - 1,690			 - 33.9	  J -	 48.7 J	- 616		 2,520 J	-		 1,440 J		 2,320 J	-	 1,030 J -						
Lead Magnesium	NA 1		va NA	600 6,00 NA NA NA NA		3,030	1,040 J	-	- J	- 1,690 	J	-		J -	- 1 - 1 -	i	J	2,520 J			- [ -	· i -	- ! -		<u> </u>		J -	61.4 J –			
Manganese Nickel	NA 1	IA NA N	NA NA	NA NA 0 1,000 10.00	1,300 10 495	004				:			 - 17.3	- i -	- i - i -	i			-				 290	-	60.9	32.9				32.6	50.8
Selenium	400 4	00 700 7	00 700	700 7,00	0 4.77	1.35	1.67 J	-	< 0.57 -	0.285 4.14	J	-	- 0.58	J 0.223	0.706	1.08	J	3.05 J			1.54 J	-		1 -		1.25	·	< 0.527 0.2635		0.787 J	
Silver Thallium	100 1 8	υυ 200 2 8 60 6	00 200 50 80	0 1,000 10,00 700 7,00 200 2,00 80 80	0 6.10 3.30	0.932 0.796	1.47 – <1.13 –	0.565	32.2	- 2.78 0.57 <b>0.564</b>			- < 0.446 - < 0.892	- 0.223 - 0.446	<0.576 - 0.286 <1.15 - 0.579 35.1	1.49 < 1.04	0.52	5.75 < 1.14	0.57	- i - i -	0.709 < 1.08	0.54	4.7 J 2.5 < 0.944 51.2 3.160 J	0.472	<b>0.547</b> <1.2 - 0.6	0.273 - < 1.11 -	0.555	<0.527 - 0.2635 <1.05 - 0.525		< 0.984 0.492	< 1.1 - 0.55
Vanadium	400 4	00 40 4 000 3,000 3,1	40 50	50 7,00	0 291	42.9	<1.13 45.8 1,120 J		15.5	- 179 - 1,570	- 1	i - i	- 31.7 - 70.1	- 0.446	35.1 73.8 J -	25.4 562		64.7 3,290 J	-		22 989 J		51.2 3,160 J		23.8 1,420 J -	17.8 - 2,440 .	-   -	11.5		16.4 45.1 J	23.1
Hexavalent Chromium	100 1	00 200 2	00 200	200 2,00	0 5.71	4.04					J 4.6	J		J -		- 1	J -		-	5.71 J	- 1 -			† -	-   -   -	2,440 , 	J	47.7 J		- 1 - 1 -	
Mercury	20	0 30 3	30 30	30 300	72.8	3.67	2.09		0.408	1.59	-   -   -	1 - 1	- 0.03	-   -	0.0688	0.893	-   -	4.79	· I -		9		3.33	-	2.81	4.06	-   -	0.106 J	_   -   -   -	0.047	8.79 J

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failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by YCC).

Method 15.1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

City of Quincy - Intervale (226332.01) Table 1-1 thru 1-4 Soil & EPC

Analytes	S-1 & S-	MCP Method 1/3 So & S-2 & S-2 &	020 020	Maximum Detected Concentration	Concentrations		VCSS-50 1/22/2013 0-0.25	WCSS-51 11/22/2013 0-0.25	WCSS-52 11/22/2013 0-0.25	11/2	\$\$-53 22/2013 -0.25	WCSS-54 11/22/2013 0-0.25		WCSS-5 11/22/20 0-0.25		WCSS-56 11/22/2013 0-0.25		S-57 1/2013 1.25	WCSS-58 11/22/2013 0-0.25*	WCSS-59 11/22/2013 0-0.25	WCSS-60 11/22/2013 0-0.25	WCSS-6 11/22/20 0-0.25	13 11/2	SS-62 12/2013 -0.25	WCSS-63 11/22/2013 0-0.25	WCSS-72 11/22/2013 0-0.25		8/2014 -0.25	\$-2 7/28/2014 1-2
Volatile Organic Compounds (mg/Kg)		-3 GW-2 GW-3	GW-2 GW-3 U	CL (mg/Kg)	(mg/Kg)	Result	Qual. 1/2 RL	Result Qual. 1/2 RI	L Result Qual. 1/2 R	RL Result C	Qual. 1/2 RL	Result Qual.	1/2 RL	Result Qual.	1/2 RL Res	lt Qual. 1/2 RL	Result Qu	al. 1/2 RL Resu	ult Qual. 1/2 RL Re	sult Qual. 1	1/2 RL Result Qual. 1/2 RL	Result Qual.	1/2 RL Result Q	ual. 1/2 RL	Result Qual.	1/2 RL Result Qual.	1/2 RL Result Qu	ual. 1/2 RL	Result Qual. 1/2 RL
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	NA N 6 70	NA NA NA 0 6 3,000	NA NA N 6 5,000 10,0	A 0.0310 000 3.23	0.00332 0.152	-						-   -		< 0.00207 < 0.00207	0.001035 < 0.0 0.001035 < 0.0		< 0.00268 · · · · · · · · · · · · · · · · · · ·	- 0.00134 - 0.00134		-   -				_   _				-   -	
1,2,4-Trimethylbenzene	NA N	NA NA	NA NA N	A 0.0579	0.0163							-   -		< 0.00207	0.001035 < 0.0	39 - 0.00195	< 0.00268	0.00134		-   -				-   -	- 1-	-   -   -		-   -	
1,2-Dichlorobenzene 1,3,5-Trimethylbenzene	100 30 NA N		100 300 10,0 NA NA N		0.103 0.0036									< 0.00207 < 0.00207	0.001035 < 0.0 0.001035 < 0.0		< 0.00268 · · · · · · · · · · · · · · · · · · ·	- 0.00134 - 0.00134		-   -									
1,3-Dichlorobenzene	100 10	0 200 500	200 500 5,0	100 22.7	0.963	-				-	-   -			< 0.00207	0.001035 < 0.0	39 - 0.00195	< 0.00268	0.00134		-   -				-   -	-   -			-   -	
1,4-Dichlorobenzene 2-Butanone (MEK)	1 8 50 40		1 2,000 10,0 50 400 10,0		1.21 0.0330									< 0.00207 < 0.0207	0.001035 < 0.0 0.01035 < 0.0		< 0.00268 · · · · · · · · · · · · · · · · · · ·	- 0.00134 - 0.0134		-   -				-   -				-   -	
4-Methyl-2-pentanone (MIBK)	50 40	0 50 400	50 400 10,0	0.0664	0.0184	-		-   -   -	-   -   -	- 1	-   -	-   -	-	< 0.0207	0.01035 < 0.0	19 - 0.0195	< 0.0268	- 0.0134		-   -				-   -	-   -	-	-	-   -	
Acetone Benzene**	50 40 40 4		50 400 10,0 400 1,000 10,0	000 0.207 000 0.430	0.12 0.0366									< 0.207 < 0.00207	0.1035 < 0. 0.001035 < 0.0			- 0.134 - 0.00134		-   -				-   -	- + -				
Bromomethane Carbon Disulfide	0.5 3 NA N	0.5 30	0.5 30 6,0 NA NA N	0.0474 A 0.00556	0.00577 0.00181	-				-	-   -			< 0.00413 < 0.00207	0.002065 < 0.00 0.001035 < 0.0			- 0.002675 - 0.00134		- [ - [				-   -	- [-				
Chlorobenzene	3 10	0 3 100	3 100 10,0	95.0	3.98	-				-	= + =			< 0.00207	0.001035 < 0.0	39 - 0.00195	< 0.00268	- 0.00134		-   -				-	+- +			-   -	
Chloromethane cis-1,2-Dichloroethylene	NA N 0.1 10		NA NA N 0.1 500 5,0		0.00611 0.0387	-					-   -	-   -		< 0.00413 < 0.00207	0.002065 < 0.00 0.001035 < 0.0		< 0.00535 · · · < 0.00268 · ·	- 0.002675 - 0.00134		_   _   _				-   -					
Dichlorodifluoromethane (Freon 12)	NA N	NA NA	NA NA 5,0	0.120	0.0272	-				-	-   -			< 0.00413	0.002065 < 0.00	79 – 0.003895	< 0.00535	0.002675		-   -				-   -	-   -			-   -	
Ethylbenzene** Isopropylbenzene (Cumene)	500 50 NA N		1,000 3,000 10,0 NA NA N		0.0382 0.0135						-   -			0.000905 < 0.00207	- <b>0.00</b> 0.001035 < 0.0		0.00227 < 0.00268	- 0.00134											
m+p Xylene**	100 50	0 100 1,000	100 3,000 10,0	000 1.43	0.148	-		-   -   -	-   -   -	- 1	-   -	-   -	-	0.00368 -	- 0.0	3	0.00855	-		-   -				-   -	-   -	-		-   -	
Naphthalene** n-Butylbenzene	20 50 NA N		20 3,000 10,0 NA NA N		0.766 0.0213									< 0.0207 < 0.00207	0.01035 < 0.0 0.001035 < 0.0			- 0.0134 - 0.00134		-   -				-   -	- + -				
n-Propylbenzene o-Xvlene**	NA N 100 50		NA NA N 100 3,000 10,0		0.0213 0.0411	-				-	-   -			< 0.00207 0.00148	0.001035 < 0.0 - <b>0.0</b> 1		< 0.00268 · 0.00339	- 0.00134		- [ - [				-   -	- [-				
p-Isopropyltoluene (p-Cymene)	NA N		NA NA N	A 0.236	0.0262					-	-   -			< 0.00207	0.001035 < 0.0	39 - 0.00195	< 0.00268	- 0.00134		-   -				-   -	- 1-				
Styrene Tetrachloroethylene	4 7 10 3	) 4 300 ) 10 200	4 2,000 10,0 10 1,000 10,0	000 1.87 000 3.94	0.119 0.297						-   -			< 0.00207 < 0.00207	0.001035 < 0.0 0.001035 <b>0.0</b>		< 0.00268 · · · · · · · · · · · · · · · · · · ·	- 0.00134 - 0.00134		-   -				-   -	_ [ _ [				_   -   -
Tetrahydrofuran	NA N		NA NA N	A 6.67	0.608	-				-	-   -		-	< 0.0413	0.02065 < 0.0	79 - 0.03895	< 0.0535	0.02675		-   -				-   -	-   -			-   -	
Toluene** Trichloroethylene	500 50 0.3 3		2,000 3,000 10,0 0.3 60 60		0.102 0.0359	-				-	-   -			< 0.00207 < 0.00207	0.001035 < 0.0 0.001035 < 0.0		0.0381 < 0.00268	- 0.00134		-				-   -	+-+			-   -	
Trichlorofluoromethane (Freon 11)	NA N		NA NA N 0.7 60 60		0.0135						-   -			< 0.00413 < 0.00207	0.002065 < 0.00			- 0.002675 - 0.00134		-   -				-   -				-   -	
Vinyl Chloride Volatile Petroleum Hydrocarbons (mg/kg)	0.7 1.	J U./ /	0.7 60 60	0.0509	0.0085	-		-   -   -	- 1 - 1 -	- 1	- : -	-   -	_	< 0.00207	0.001035 < 0.0	39     0.00195	< 0.00268	- 1 0.00134		- ! - !		- 1-		- ! -	- ! - !	-	-	- ; -	
C5-C8 Aliphatics (adjusted) C9-C12 Aliphatics (adjusted)	100 10 1,000 1,0		500 500 5,0 5,000 5,000 20,0	000 79.6 000 50.7	5.57 4.24					-	-   -									-   -				-   -	-   -			-   -	
C9-C10 Aromatics	100 10		500 500 5,0		1.69	-							-							-   -				-   -					
Extractable Petroleum Hydrocarbons (mg/kg) C9-C18 Aliphatics	1.000 1.0	00 3.000 3.000	5.000 5.000 20.0	000 6,890	305	_		-   -   -	-   -   -	- 1	- 1 -	-   -	_	-   -		1 - 1 -	< 5.28	- 2.64		-   -		-   -		-   -	-   -			- 1 -	
C19-C36 Aliphatics	3,000 3,0	00 5,000 5,000	5,000 5,000 20,0	9,730	612						-   -	-   -	-				59			-   -		-   -		-   -	-   -			-   -	
C11-C22 Aromatics (Adjusted)  2-Methylnaphthalene	1,000 1,0 80 30		5,000 5,000 10,0 80 500 5,0	000 1,870 100 0.632	188 0.250								-	-   -			<b>42.6</b> < 0.528 L	J J 0.264		-   -					- + -			-   -	
Acenaphthene Acenaphthylene	1,000 1,0 600 1		5,000 5,000 10,0 600 10 10,0		0.155 0.264	-				-	-   -		-				< 0.528 L < 0.528 L	J NC J 0.264		-   -				-   -	-   -			-   -	
Anthracene	1,000 1,0		5,000 5,000 10,0		0.293	-				-	= + =		-				< 0.528 L	J 0.264		-   -				-	+- +			-   -	
Benzo(a)anthracene Benzo(a)ovrene	7 7	40 40 7 7	300 300 3,0 30 30 30		1.31 1.80					-			-				0.839 1.38	J						_					
Benzo(b)fluoranthene	7	40 40	300 300 3,0	7.26	2.39							-   -	-				2.17	J		-   -				-   -	-   -				
Benzo(g,h,i)perylene Benzo(k)fluoranthene	1,000 1,0 70 7	00 3,000 3,000 0 400 400	5,000 5,000 10,0 3,000 3,000 10,0	000 3.77 000 2.94	1.34 1.06	-				-							< 0.528 L 0.798	J 0.264 J		-   -				-   -				-   -	
Chrysene	70 7 0.7 0.	400 400	3,000 3,000 10,0	000 6.32	1.76	-		-   -   -	-   -   -	- 1	-   -	-   -	-			- -	1.38	J		-   -				-   -	-   -	-		-   -	
Dibenz(a,h)anthracene Fluoranthene	1,000 1,0	7 4 4 00 3,000 3,000	5,000 5,000 10,0	00 2.06 000 10.6	0.908 2.16					-	-   -		-	-   -			< 0.528 L 1.92	J 0.264 J											
Fluorene Indeno(1.2.3-cd)ovrene	1,000 1,0	00 3,000 3,000 40 40	5,000 5,000 10,0 300 300 3,0	000 0.375 000 3.92	0.239 1.35	-				-	-   -	-   -	-	-   -			< 0.528 L < 0.528 L	J 0.264 J 0.264		-   -				-   -	-   -				
Phenanthrene	500 50	0 1,000 1,000	3,000 3,000 10,0	000 4.44	0.951								-				0.677	J		-   -				-   -					
Pyrene Polychlorinated Biphenyls (mg/kg)	1,000 1,0	3,000 3,000	5,000 5,000 10,0	000 8.42	2.06	-		-   -   -	-   -   -	- 1	<u>- i - </u>	-   -	-	<u> </u>		<u> </u>	1.76	J		<u>-   -   </u>		- 1 -		- 1 -	-   -	-	1	- ! -	
Aroclor-1242 Aroclor-1248	1 1	4 4	4 4 10 4 4 10	00 2,300 00 0.206	23.3 0.10			< 0.739 0.369 < 0.739 NC	5 < 0.376 - 0.18i < 0.376 - 0.18i		-   -	R	-	-   -			< 0.0376 - < 0.0376 -	- 0.0188 < 0.1 - 0.0188 < 0.1			0.0178 < 0.174 0.087 0.0178 < 0.174 0.087	< 0.0344 < 0.0344	0.0172 < 0.362 0.0172 < 0.362	- 0.181 - 0.181		0.655 NC	< 0.177 - < 0.177 -	- 0.0885 - 0.0885	
Aroclor-1254	1 1	4 4	4 4 10	00 164	2.79	-		< 0.739 0.369	5 < 0.376 - 0.18	8 R		R -	-				< 0.0376	0.0188 < 0.1	8 - 0.09 < 0.	0356 0.	0.0178 < 0.174 0.087	< 0.0344	0.0172 < 0.362	- 0.181	< 1.31	0.655	- < 0.177 -	- 0.0885	
Aroclor-1260 Total PCBs	1 1	4 4	4 4 10	00 1,040 00 2,300	21.0 43.8			3.15 3.15		0.381 0.381	J -	0.376 J 0.376 -					0.105 0.105	0.30 0.30		125 J 125 –	- 0.43 J 0.43	0.0378 0.0378	3.24 3.24		7.67 7.67		- 0.915 - 0.915		
Metals (mg/kg)	NA **	A NA NA	NA NA								÷			<u> </u>			<u> </u>			<del>-                                    </del>				÷					
Aluminum Antimony	NA N 20 2		NA NA N 30 30 30		9,240 5.12	< 0.564	0.282	2.6	1.76	0.573	=   =		0.2445				< 0.537	- 0.2685 < 0.4			0.284 0.683	 < 0.478 -	0.239 <b>5.1</b>	-1-	54.7 _		0.288		13.4
Arsenic Barium	20 2 1,000 1,0		50 50 50 5,000 5,000 10,0		9.27 217	3.32 31.8		5.47 78.1		4.89 39.5		3.19 - 32.6 -					2.38 22.9	3.42 49.	2 3	.62 9.2	5.87 47	2.92 19.9	- 10.2 - 179		32 – 317 –	- 3.15 - - 29 -			32.1 170
Beryllium		200 200		1.96	0.556	0.288		0.758	0.271	0.287	-   -	0.358	-				0.186	0.27	77 0.	293	- 0.363	0.39	- 0.477	-   -	0.433	- 0.195 -		-   -	0.285
Cadmium Calcium			60 60 1,0 NA NA N		4.52 5,190	0.524		5.51	3.51	1.32		0.69	-	_			0.343	0.65 		677	- 1.82	0.15 	- 7.89 		12.4	- 0.315 -			6.83
Chromium	100 10	0 200 200	200 200 2,0	00 560	74.1	10.4		29.9	29.1	55.3	-   -	34.2	-	-   -			10.3	25.4	4 2	1.5 -	- 26.2	6.53	_ 17.9	-   -	61.8	7.09			40.8
Cobalt Copper	NA N	NA NA	NA NA N	A 3,500	9.84 1,142			- 1 - 1 -		-	-   -						-							-   -					
Iron Lead	NA N	NA NA	NA NA N	A 120,000	52,400 873	 69.7		 617 J+	338	- i	 J+ -	 106 J+	-		<u> </u>		 48 ,	 + - 121	 1 J+ - 1			24.2		-   -					351
Magnesium	NA N	NA NA	600 600 6,0 NA NA N	A 4,600	3,030		J+ -	[ - [ -		-	-   -		-				-			- I - I		-   -		-   -	·iii	- 13.3 J+			
Manganese Nickel			NA NA N 1,000 1,000 10,0		681 80.4	9.59		- 1 - 1 -		- 47.4			-		<u> </u>		 12	23.1	7 2	9.4 -		 6.97 - 0.388 -	25.7			 - 6.1 -			78.6
Selenium	400 40	0 700 700	700 700 7,0	100 4.77	1.35	< 0.564	0.282	0.52	< 0.621 0.310	0.914		0.783	-				< 0.537	- 0.2685 < 0.4	93 0.2465 1	.19	- 33.7	0.388	- 25.7 - 0.904		2.28	- < 0.576	0.288	-   -	< 0.661 - 0.3305
Silver Thallium	8 8	60 60	200 200 2,0 80 80 80	3.30		< 0.564 < 1.13	0.282 0.565	<0.579 - 0.289 <1.16 - 0.58	5 < 0.621 0.310 < 1.24 0.62	2 <11	- 0.55	< 0.977	0.2445 0.4885				< 0.537 < 1.07	- 0.535 < 0.9	93 0.2465 < 0 86 0.493 <	1.14	0.57 < 1.03 - 0.515	< 0.478 - < 0.955 -	0.239 < 0.605 0.4775 < 1.21				0.288 0.575		1.21 <1.32 - 0.66
Vanadium Zinc	400 40	0 40 40	50 50 7,0 5,000 5,000 10,0	100 291	42.9	23.8		16.2	17.9	24.1	-   -	23.9 -	-				27.9 79.6	22.9	9 2	3.1	19.9 338 J+	17.3	0.4775 < 1.21 - 17.7 - 895	- 1 -	31.3	- 9.24		-   -	83.7
Hexavalent Chromium	100 10	0 200 200	200 200 2,0	00 5.71	4.04		JT -	<1.16 - 0.58 16.2 613 J+ - 1.76 J				23.9 - 131 J+  0.111 J-	-								338 J+	47.3 J+  0.0346 J-	- 895 	- 1 -				-   -	
Mercury	20 2	30 30	30 30 30	00 72.8	3.67	0.0705	J	1.76 J	0.83 J	0.172	J	0.111 J-	- [	-   -	-   "-		0.109	J 0.08i	07 J 0.		0.104 J	0.0346 J-	1.43	J	0.799 J-	0.0164 J-		-   -	0.284

Notes:
mg/kg = Miligrams per kilogram.
If bgs = Feet below ground surface.
NA = No standard available.
Only constituents that have been detected at least once among relevant samples are presented.
\* The highest detected concentration between primary and field duplicate samples is presented.
\* The highest detected concentration between primary and field duplicate samples is presented.
\* Constituents in and detected, value presented as the laboratory reporting limit (RL).
Data qualifiers presented in the "Qual." column are defined thus: A "U" indicates that a non-detect result was qualified as estimated. A "u" indicates that a detected result was qualified as estimated. A "u" indicates that a detected result was qualified as estimated. A plus (-) or minus (-) sign indicates that effection of potential bias, if known. An "R" indicates that data were rejected due to gross failure.
Expossure Point Concentrations (EPCs) were calculated based upon the average concentrations arms the entire discrete his for each provided that are sufficient to the concentrations arms the entire discrete his for each provided that are sufficient to the average concentrations.

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 15. Risk Chanacderization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

Mary   Mary			MCP Method 1/3 Soil Standard	is	Maximur Detected	Exposure Point	<b>S-4</b> 7/28/2014	<b>S-6</b> 7/28/2014	S-6 7/28/2014	<b>S-7</b> 7/28/2014	S-8 7/28/2014		S-9 7/28/2014		S-10 7/28/2014	S- 7/28/		<b>S-12</b> 7/28/201		<b>S-13</b> 7/28/201		S-14 7/28/201		S-15 28/2014	S-16 7/28/2014	\$-1 7/28/	· · · · · · · · · · · · · · · · · · ·	S-18 7/28/2014	S-19 7/28/2014		3-22 28/2014
	Analytes				Concentrat	tion Concentrations	0-0.25	0-0.25 Result Qual. 1/2 RL	2-3	0-0.25		RL Result	0-0.25*		0-0.25	0-0	.25	0-0.25	j	0-0.25	j	0-0.25		0-0.25	1-2 Result Qual. 1/2				0-0.25	<u> </u>	0-0.25
Column		ΝΔ ΝΔ	NA NA NA	NA NA	0.0310	0.00332				_   _   _	_   _								•		<u> </u>			_							
	1,2,4-Trichlorobenzene	6 700	6 3,000 6	5,000 10,000	0 3.23	0.152					-   -   -	-		-		-   -		-   -	-	-   -	-				-   -					-	
Column   C											-   -   -					-   -			-	+-	-				-   -					-	
State   Stat											-   -   -	-		-	-   -	- [ -			-	-   -	-				-   -			-   -   -		-	
		1 80			0 27.5	1.21											+ -	- + -	-	- +-	<del>  -</del>				-   -			<del>                                     </del>		-	
Second Second														-					-				·		-   -					-	
The content of the	Acetone	50 400	50 400 50	400 10,000	0.207	0.12									·····	-   -		-   -	-	-   -	-		·		-   -	-				-	
Total Property   Tota											-   -   -			-+				-   -	-	+-	-				-   -			+- +		-	
The content will be content		NA NA	NA NA NA								-   -   -	-		-	-   -	-   -		-   -		-   -	-				-   -					-	
			NA NA NA		0.0532	0.00611											+ -	- + -	-	- +-	<del>  -</del>				-   -			<del>                                     </del>		-	
Column   C														-		-   -		-   -	-		-		·		-   -					-	
The content of the	Ethylbenzene**	500 500	1,000 1,000 1,000	3,000 10,000	0.322	0.0382									·····	- 1 -	<u> </u>	-   -	-	-   -	-		·		-   -					-	
Control   Cont														-+												<u> </u>				-	
Second Second	Naphthalene**	20 500	20 1,000 20	3,000 10,000	0 11.2	0.766									-   -	-   -		-   -	-		-				-   -					-	
Column		NA NA	NA NA NA		0.136	0.0213					-   -   -		<del>                                     </del>	+	-   -	-   -	+=		<del>  -</del> -+		<del>  -</del>	-   -									
No. of Control   Control	o-Xylene**	100 500			0.531	0.0411				-   -   -	-   -   -		[ -   -	-		-   -	-	-   -	-	-   -	-		·		-   -			I - I - I -		-	
Column   C	Styrene	4 70	4 300 4	2,000 10,000	0 1.87	0.119		-   -   -							·····			- 1 -				-   -	·		-   -					-	
Section 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											-   -   -			+ -	-   -	- T -	-	-   -		- T-	-			-   -	-   -					+ =	-   -
The content of the	Toluene**	500 500	1,000 1,000 2,000	3,000 10,000	0 1.11	0.102		-   -   -		-   -   -	-   -   -		- -	-	-   -			-   -	-	-   -		-   -		-   -	-   -	-   -	-   -   -	- - -		-	
State   Stat											-   -   -			-	-   -			-   -	-	+-	-				-   -			+- +		-	
Column   C		0.7 1.0	0.7 7 0.7	60 600	0.0509	0.0085				-   -   -	-   -	-		- 1	-   -	- i -		-   -	-	- 1-	-				-   -			i - i	- I - I -	-	
Section   Sect	C5-C8 Aliphatics (adjusted)	100 100							-   -   -		-   -   -		- -	- 1	-   -	- 1 -	·   -	-   -	1 -	-   -	1 -				-   -	-		- -		-	
Part   Part														-			-		-		-		·								
Column   C	Extractable Petroleum Hydrocarbons (mg/kg)																														
Contine																												+ - + - + :		-	
96 19 19 19 19 19 19 19 19 19 19 19 19 19					0 1,870	188					-   -   -					-   -		-   -		-   -	-		·		-   -					-	
March   Marc																		-   -	-		-		·					+= += +=	= =	-	
Section 1																-   -		-   -	-		-		·		-   -					-	
		7 7		300 3,000	4.08	1.31					-   -   -			-+		- 1 -	<u> </u>	-   -	-	-   -	-				-   -					-	
		2 2 7 7												-	-   -	-   -		-   -	-		-									-	
Part   Part		1,000 1,000			0 3.77	1.34					-   -   -	-				-   -		-   -		-   -	-		·		-   -					-	
Figure 100 00 20 30 30 30 40 50 50 50 50 50 50 50 50 50 50 50 50 50		70 70																-   -	-		-		·					+= += +=	= =	-	
Property   1.00   1.0											-   -			-	-   -	-   -		-   -	-		-				-   -					-	
Profession 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Fluorene		3,000 3,000 5,000	5,000 10,000	0.375	0.239					-   -			<u> </u>	-   -		<u> </u>	-   -	-	-   -	-				-   -					-	
September 1988 1989 1999 1999 1999 1999 1999 199		7 7 500 500												-				-   -			-									-	
	Pyrene	1,000 1,000							-   -   -	-   -   -	-   -   -	-	-   -	- 1	- † -	- † -	- t -	- † -	-	- 1-	-				-   -	-   -   -		i - i -   -		-	
Properties   1   1   4   4   5   5   5   5   5   5   5   5	Aroclor-1242	1 1	4 4 4	4 100																	-			- 0.087	-   -						- 0.0174
Total Part Cale		1 1													····																- 0.0174 - 0.0174
Alterium N. N. N. N. N. N. N. N. N. N. N. N. N.		1 1																													
American	Metals (mg/kg)						(	o.ord				1.30		0.304		0.000	-	1.10		2.004	_	1.10	0.2020	-		3.23	- 2.39	0.		0.130	-
Association   Association		NA NA 20 20	NA NA NA 30 30 30	NA NA 30 300			_   -   -		 0.646 J					<del>  -</del>					-	-   -					2.11 J-			+ -   -		-	
Bervillon   90   90   200	Arsenic	20 20			74.1	9.27			4.36 J	-   -   -				-		-				-   -	- 1				5.13 J-					-	
Change   NA NA NA NA NA NA NA NA NA NA NA NA NA																		-   -	-		-		·								
Cobat   NA NA NA NA NA NA NA NA NA NA NA NA NA		70 70 NA NA	60 60 60 NA NA NA	60 1,000					0.353		-   -	-		-	-   -	-	-   -	- [ -	-	-   -	-									-	
Magnesse NA NA NA NA NA NA NA NA NA NA NA NA NA	Chromium	100 100	200 200 200	200 2,000	560	74.1			2.78 J		- 1 - 1		· <del></del>			····			-				·		11.3 J-					_	
Magnesse NA NA NA NA NA NA NA NA NA NA NA NA NA		NA NA NA N∆	NA NA NA	NA NA	25.0 3.500	9.84 1 142							<u> </u>			ļ <u>.</u>											-   -   -	-   -	-   -   -	-	
Magassum NA NA NA NA NA NA NA NA NA NA NA NA NA		NA NA	NA NA NA	NA NA	120,000	52,400	-   -   -				-   -		<u> </u>						-						-   -		- i -   -		-   -	-	
Maganese		NA NA	NA NA NA	NA NA	4,600	3,030					-   -				-   -						-i						- i -   -				
Selenum 400 400 700 700 700 700 700 700 700 700	Manganese	NA NA	NA NA NA	NA NA	1,300	681							<u>  -   -</u>							-   -					-   -		-   -   -			-	
Ster 10 10 200 200 200 200 200 200 200 200 2	Selenium	400 400	700 700 700	700 7 000	4 77	1.35			< 0.488 UJ -						-   -			-   -	-						0.575 J-						
Vandium 40 40 40 50 50 7,000 291 429		100 100 8 8	200 200 200 60 60 80	200 2,000 80 800	6.10 3.30	0.932 0.796			< 0.488 0.244 < 0.976 0.488	<u> </u>			-   -	-					<b>1</b>		-i				2.33 - (		-   -   -		-   -	-	
Znc 1,000 1,000 5,000 5,000 5,000 5,000 1,	Vanadium	400 400	40 40 50	50 7,000	) 291	42.9			1.29 J	-   -   -			<u> </u>					- i -			-				15.9 J-		- i - l -		-   -	-	
		100 100	200 200 200	200 2,000	) 10,000 ) 5.71	1,073 4.04					-   -		<u> </u>			<u> </u>		i		+-	-i						- 1 - 1 -	1 - 1 -		-	
Mercury 20 20 30 30 30 30 30 30 30 30 30 30 30 30 30	Mercury			30 300	72.8	3.67			0.0118	-   -   -		-					-		-		-				0.476						

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Notes:

mg/kg = Miligrams per klogram.

It bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

"I The highest detected concentration between primary and field duplicate samples is presented.

"I The highest detected concentration between primary and field duplicate samples is presented.

"Constituent is not detected, value presented is the laboratory reporting limit (RLI).

Data qualifiers presented in the "Qual." column are defined thus: A "U" indicates that an on-detect result was qualified as estimated. A "I" indicates that a detected result was qualified as estimated. A "I" indicates that a detected result was qualified as estimated. A "I" indicates that a foreign of the result was qualified as estimated. A "U" indicates that a foreign of the result was qualified as estimated. A "U" indicates that a detected result was qualified as estimated. A "U" indicates that a foreign of the result was qualified as estimated. A "U" indicates that a detection of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (PCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected.

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by NCC).

Method 15.1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

City of Quincy - Intervale (226332.01) Table 1-1 thru 1-4 Soil & EPC

	MCP Method 1/3 So	II Standards	Maximum Detected		70	S-23 S-25 3/2014 7/28/2014	S-26 S-27 7/28/2014 7/28/2014		S-30 7/28/2014	\$-31 7/28/2014		\$-33 7/28/2014	\$-37 7/29/2014	S-38 7/29/2014	S-39 7/29/20		S-40 7/29/2014	\$-4! 7/29/2		\$-4 7/29/2		<b>S-52 S-53</b> 29/2014 7/29/2014	\$-5 4 7/20/F	-54 /2014
Analytes	S-1 & S-1 & S-2 & S-2 &		Concentration	on Concentrations	(	0.25 0-0.25	0-0.25 0-0.25	400	1-2	0-0.25	40.0	0-0.25	0-0.25	0-0.25	0-0.25	5	0-0.25	0-0.2	5 0-0.25	14	(	0-0.25* 0-0.25	0-0.	0.25
Volatile Organic Compounds (mg/Kg)	GW-2 GW-3 GW-2 GW-3	GW-2 GW-3	(mg/Kg)		Result	Qual. 1/2 RL Result Qual. 1/2 RL Result	Qual. 1/2 RL Result Qual.	1/2 RL Resu	It Qual. 1/2	RL Result Qual.	1/2 RL Resu	it Qual. 1/2 RL	result Qual. 1/2	RL Result Qual. 1/2 R	Result Qual.	. 1/2 RL Result	Qual.   1/2 RL	Result Qual	. 1/2 RL Result Qual.	1/2 KL Result Qua	1/2 RL Result (	Qual. 1/2 RL Result Qual.	1/2 RL Result Qual	ai. 1/2 RL
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	NA NA NA NA 6 700 6 3,000	NA NA NA 6 5,000 10,00	0.0310	0.00332 0.152	-														<del>                                     </del>					
1,2,4-Trimethylbenzene	NA NA NA NA	NA NA NA	0.0579	0.0163	-								-   -   -											-
1,2-Dichlorobenzene 1,3,5-Trimethylbenzene	100 300 100 300 NA NA NA NA	100 300 10,00 NA NA NA	00 2.06 0.0197	0.103 0.0036	-								-   -											
1,3-Dichlorobenzene	100 100 200 500	200 500 5,00	0 22.7	0.963	-																			-
1,4-Dichlorobenzene 2-Butanone (MEK)	1 80 1 400 50 400 50 400	1 2,000 10,00 50 400 10,00	00 27.5	1.21 0.0330	-							+-+-				+								-
4-Methyl-2-pentanone (MIBK)	50 400 50 400	50 400 10,00	0.0664	0.0184	-		- - -			-   -			-   -   -	-   -   -					-   -   -					-
Acetone Benzene**	50 400 50 400 40 40 200 200	50 400 10,00 400 1,000 10,00	00 0.207 00 0.430	0.12 0.0366	-								-   -											
Bromomethane Carbon Disulfide	0.5 30 0.5 30 NA NA NA NA	0.5 30 6,00 NA NA NA	0 0.0474 0.00556		-																			-
Chlorobenzene	3 100 3 100	3 100 10,00	00 95.0	3.98	-		-   -   -   -										+= +=							
Chloromethane cis-1,2-Dichloroethylene	NA NA NA NA 0.1 100 0.1 500	NA NA NA 0.1 500 5,00	0.0532 0 0.548	0.00611 0.0387	-								-   -   -											-
Dichlorodifluoromethane (Freon 12)	NA NA NA NA	NA NA 5,00	0 0.120		-												+= +=		+ = + = + =					
Ethylbenzene** Isopropylbenzene (Cumene)	500 500 1,000 1,000 NA NA NA NA	1,000 3,000 10,00 NA NA NA	0.0596 0.0596		-								-   -   -											-
m+p Xylene**	100 500 100 1,000	100 3,000 10,00	00 1.43	0.148	-							<del> </del>				+ = + =			+					-
Naphthalene** n-Butylbenzene	20 500 20 1,000 NA NA NA NA	20 3,000 10,00 NA NA NA	00 11.2 0.124	0.766 0.0213	-																			
n-Propylbenzene	NA NA NA NA	NA NA NA	0.136	0.0213	-															-   -   -				-
o-Xylene** p-Isopropyltoluene (p-Cymene)	100 500 100 1,000 NA NA NA NA	100 3,000 10,00 NA NA NA	0.531 0.236	0.0411 0.0262	<u>-</u>								_   _						-   -   -					
Styrene	4 70 4 300	4 2,000 10,00	00 1.87	0.119	-															-   -   -				-
Tetrachloroethylene Tetrahydrofuran	10 30 10 200 NA NA NA NA	10 1,000 10,00 NA NA NA	00 3.94 6.67	0.297 0.608	<u>-</u>								_   _						-   -   -					
Toluene**	500 500 1,000 1,000	2,000 3,000 10,00	00 1.11	0.102	-								_   _	-			- -							-
Trichloroethylene Trichlorofluoromethane (Freon 11)	0.3 30 0.3 60 NA NA NA NA	0.3 60 600 NA NA NA	0.402 0.090	0.0359 0.0135	-								-   -											
Vinyl Chloride	0.7 1.0 0.7 7	0.7 60 600	0.0509		-								-   -   -	-   -   -	-   -		- -							-
Volatile Petroleum Hydrocarbons (mg/kg) C5-C8 Aliphatics (adjusted)	100 100 500 500	500 500 5.00	0 79.6	5.57						-   -		1 - 1 -	-   -   -	-   -   -		1	T - 1 -		I - I - I					
C9-C12 Aliphatics (adjusted)	1,000 1,000 3,000 3,000	5,000 5,000 20,00	00 50.7				- - -			-   -			-   -   -						-   -   -					
C9-C10 Aromatics  Extractable Petroleum Hydrocarbons (mg/kg)	100 100 500 500	500 500 5,00	0 13.6	1.69			i - i -   -   -			-   -		i - i -	- 1 - 1 -	-   -   -	-   -	i	1-1-	- i -	-   -			i-		
C9-C18 Aliphatics	1,000 1,000 3,000 3,000	5,000 5,000 20,00	00 6,890	305									-   -   -					-   -						
C19-C36 Aliphatics C11-C22 Aromatics (Adjusted)	3,000 3,000 5,000 5,000 1,000 1,000 3,000 3,000		00 9,730 00 1,870	612 188	-							+-+-												
2-Methylnaphthalene	80 300 80 500 1,000 1,000 3,000 3,000	80 500 5,00	0.632		-								-   -   -	-   -				-   -						-
Acenaphthene Acenaphthylene	1,000 1,000 3,000 3,000 600 10 600 10	5,000 5,000 10,00 600 10 10,00	00 0.211 00 0.354	0.155 0.264	-								-   -											
Anthracene Benzo(a)anthracene	1,000 1,000 3,000 3,000 7 7 40 40	5,000 5,000 10,00 300 300 3,00	00 0.686 0 4.08	0.293 1.31	-								-   -   -											-
Benzo(a)pyrene	2 2 7 7	30 30 300	5.20	1.80	-		-   -   -   -										+= +=							
Benzo(b)fluoranthene Benzo(g,h,i)perylene	7 7 40 40 1,000 1,000 3,000 3,000	300 300 3,00 5,000 5,000 10,00	0 7.26 00 3.77	2.39 1.34	-								-   -   -											-
Benzo(k)fluoranthene	70 70 400 400	3,000 3,000 10,00	00 2.94	1.06	-							1-1-					1-1-		1 - 1 - 1 - 1					-
Chrysene Dibenz(a,h)anthracene	70 70 400 400 0.7 0.7 4 4	3,000 3,000 10,00 30 30 300	00 6.32	1.76 0.908	-														<del>                                     </del>					
Fluoranthene	1,000 1,000 3,000 3,000	5,000 5,000 10,00	00 10.6	2.16	-								-   -   -											-
Fluorene Indeno(1,2,3-cd)pyrene	1,000 1,000 3,000 3,000 7 7 40 40	5,000 5,000 10,00 300 300 3,00	00 0.375 0 3.92	0.239 1.35	-								-   -											
Phenanthrene	500 500 1,000 1,000	3,000 3,000 10,00	0 4.44	0.951	-								_   _											-
Pyrene Polychlorinated Biphenyls (mg/kg)	1,000 1,000 3,000 3,000	5,000 5,000 10,00	00 8.42	2.06			i - i -   -			- 1 - 1		1 - 1 -	- 1 - 1 -	- 1 - 1 -	- 1-	i	1 - 1 -	-   -	1 - 1 - 1					
Aroclor-1242 Aroclor-1248	1 1 4 4	4 4 100 4 4 100	2,300	23.3 0.10	< 0.341 < 0.341	- 0.1705 < 0.035 - 0.0175 < 0.0349 - 0.1705 < 0.035 - 0.0175 < 0.0349		1.855 - NC -			0.087 < 0.034 0.087 < 0.034			<0.346 - 0.17 38 <0.346 - 0.173		0.3405 < 0.341 NC < 0.341		< 0.175 < 0.175		0.875 NC	- < 0.0677 - < 0.0677	- 0.03385 <b>0.32</b> - 0.03385 < 0.341 -	- <b>0.515</b> - 0.1705 < 0.69	
Aroclor-1254	1 1 4 4	4 4 100 4 4 100	164	2.79	0.704	< 0.035 - 0.0175 < 0.0349	0.01745 < 3.71	1.855		- < 0.174 -	0.087 < 0.034	49 - 0.01745	< 0.0676 - 0.03		6.86	- 2		< 0.175	0.0875 < 1.75	0.875	- 0.843	3.73 -	- < 0.69 -	- NC 0.345
Aroclor-1260 Total PCBs	1 1 4 4	4 4 100 4 4 100	1,040		< 0.341 0.704	- 0.1705					- 0.22 - 0.22		0.558 0.5923	1.86 1.86		0.3405 < 0.341 2			- 8.32 - - 8.32 -		< 0.0677 0.843	- 0.03385 < 0.341 - <b>4.05</b> -	0.1705 <b>6.57</b> - <b>7.085</b> -	
Metals (mg/kg)					0.104	5.100				0.000	ULL		0.0020	1.00	0.00		: :	5.700	0.02		0.040	4.00	11000	
Aluminum Antimony	NA NA NA NA 20 20 30 30	NA NA NA 30 30 300	14,000	9,240 5.12				4.91								-   -				- 4.94				
Arsenic	20 20 20 20	50 50 500	74.1	9.27	-			- 12.1	J											6.8				
Barium Beryllium	1,000 1,000 3,000 3,000 90 90 200 200				-			- 268 - 0.63								+ = + =				121 0.464				
Cadmium		60 60 1,00 NA NA NA		4.52	-			- 7.7					-   -   -					-   -		- 3.14				
Calcium Chromium	NA NA NA NA 100 100 200 200	NA NA NA 200 200 2,00	0 560	74 1	-			55.8																
Cobalt	NA NA NA NA NA NA NA NA	NA NA NA		9.84	-		1 - 1 - 1 - 1 - 1			-   -   -			-   -   -		- 1 -		<u> </u>					-   -   -   -	-   -	
Copper Iron	NA NA NA NA	200 200 2,00 NA NA NA NA NA NA NA NA NA	120,000	52,400	-							+ - + - +					+ - + -							
Lead	200 200 600 600 NA NA NA NA	600 600 6,00 NA NA NA	0 13,100	873	-			139i 	D J	-   -   -							<u> </u>			870			-   -   -	
Magnesium Manganese	NA NA NA NA	NA NA NA	1,300	681	-														<u> </u>					
Nickel Selenium	600 600 1,000 1,000 400 400 700 700	700 700 7.00	0 477		-			- 113		-   -   -										- <b>55.1</b> - < 0.537				
Silver	100 100 200 200	200 200 2,00	0 6.10	0.932	-		<u> </u>	- 0.67	7	-   -   -						-				0.396				
Thallium Vanadium	8 8 60 60 400 400 40 40	200 200 2,00 80 80 800 50 50 7,00	3.30	0.796 42.9	-	-   -   -   -   -	i - i -   -   -	- < 1.0 - <b>32.</b> i		945		_   -   -	<u> </u>				<u> </u>			< 1.07	0.535 -		-   -   -	
Zinc	1,000 1,000 3,000 3,000	5,000 5,000 10,00	10,000	42.9 1,073				- 156	0 – -	-   -   -										25.3 747			<del> </del>	
Hexavalent Chromium  Mercury	100 100 200 200 20 20 30 30	200 200 2,00 30 30 300	0 5.71	4.04 3.67		-   -   -   -   -		 - 18.5			-   -	_   -   -	-   -   -		- 1 -		i - i -			 - 3.31		 		
		00	72.0	0.07				10.0	1 1											0.01			. , , , , , ,	

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by TVC).

Method 15.1 Risk Charaderication standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

		M	CP Method 1/3	Soil St	tandards			Maximum Detected	Exposure Point		S-58 7/29/201-	4		S-65 7/29/2014			S-67 7/29/2014			S-70 1/29/2014			-71 /2014		S-78 7/31/2014			S-80 7/29/2014			S-81 7/29/2014			S-82 7/29/2014
Analytes	S-1 &		S-2 & S-2		S-3 &		UCL	Concentration	Concentrations (mg/Kg)		0-0.25			0-0.25			0-0.25			0-0.25			-2		2-3			1-2			0-0.25			0-0.25
Volatile Organic Compounds (mg/Kg)	GW-2	GW-3	GW-2 GW	V-3 (	GW-2	GW-3	002	(mg/Kg)	, , ,	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual. 1	1/2 RL	Result C	ual. 1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual. 1/2 RL
1,2,3-Trichlorobenzene	NA	NA	NA N		NA	NA	NA	0.0310	0.00332		-		-	-	-	-	-	-	-	-	-	- [	-   -	-	-	-	-				-	-	-	-   -
1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene	6 NA	700 NA	6 3,0 NA N		6 NA	5,000 NA	10,000 NA	3.23 0.0579	0.152 0.0163			-	-	-				-						-	+=-	-	-	-	-	-	-	-		
1,2-Pichlorobenzene	100	300	100 30		100		10,000	2.06	0.0103					┟┋┪		<u>-</u>	+=+	-						+	+=-	<del>  -</del>				-	-			
1,3,5-Trimethylbenzene	NA	NA	NA N	A	NA	NA	NA	0.0197	0.0036	-			-	-	-	-	-	-	-	- 1	-	-	- 1 -	-	-	-	-		-		-	-	-	
1,3-Dichlorobenzene	100	100	200 50		200		5,000	22.7	0.963	-		-		-	-	-	-	-	-	-	-	-	-   -	-	-		-		-		-	-	-	
1,4-Dichlorobenzene 2-Butanone (MEK)	1 50	80 400	1 40 50 40		50	2,000 400	10,000	27.5 0.197	1.21 0.0330	-		-		<del>Ĭ</del>	-		+ -	-					_		+ -	<del>  -</del>	-		-	-		-		
4-Methyl-2-pentanone (MIBK)	50	400	50 40		50		10,000	0.0664	0.0184	-		-	-		-	-	-	-	-	- 1	-	-		-	-	l -	-		-		-	-	-	
Acetone	50	400	50 40		50		10,000	0.207	0.12	-	-	-	-	- 1	-	-	-	-	-	-	-	-	-   -	-	-		-	-	-	-	-	-		
Benzene** Bromomethane	40 0.5	40 30	200 20 0.5 3		400 0.5		10,000 6,000	0.430 0.0474	0.0366 0.00577	-		-		ļ <u> </u>	-	-	<u> </u>		-				-   -		+ -	-	-	-	-	-	-	-		
Carbon Disulfide	NA	NA NA	NA N		NA	NA NA	NA NA	0.00556	0.00377			-	-	- 1			+						-   -	-	+	<del>  -</del>	-	-		-	-			
Chlorobenzene	3	100	3 10		3		10,000	95.0	3.98	-	-	-	-	- 1	-	-	- 1	-	-	- İ	-	- İ	-   -	-	-	İ -	-	-	-	-	-	-	-	-   -
Chloromethane	NA 0.4	NA	NA N		NA	NA 500	NA .	0.0532	0.00611	-	-	-	-	-		-	<u>i - i</u>			<u> </u>			-	-	.		-	-		-	-	-		-   -
cis-1,2-Dichloroethylene Dichlorodifluoromethane (Freon 12)	0.1 NA	100 NA	0.1 50 NA N		0.1 NA		5,000 5,000	0.548 0.120	0.0387 0.0272		-	-				-	+ -	-					_		+ -	-	-	-	-	-	-	-	<u> </u>	
Ethylbenzene**	500	500	1,000 1,0				10,000	0.322	0.0382	-		-	-	- 1	-	-	1 - 1	-	-	- 1	-		- † -	-	† -	t -	-		-	-	-	-	-	
Isopropylbenzene (Cumene)	NA	NA	NA N		NA	NA	NA	0.0596	0.0135	-	-	-	-	- 1	-	-	-	-	-	-	-	-	-   -	-	-		-	-	-	-	-	-		
m+p Xylene** Naphthalene**	100 20	500 500	100 1,0 20 1,0			3,000	10,000	1.43 11.2	0.148 0.766	-		-		ļ <u> </u>		-	<u> </u>		-				-   -		+ -	-	-	-	-	-	-	-		
n-Butylbenzene	NA NA	NA NA	20 1,0 NA N		NA NA	3,000 NA	NA	0.124	0.0213	ļ <u>-</u>	<del>  -</del>					-	† - I								+=-	<del>                                     </del>	<del> </del>			-		-	-	
n-Propylbenzene	NA	NA	NA N	A	NA	NA	NA	0.136	0.0213	-	-	-	-	[ - İ		-	1 - 1		-	-	-	-	-   -	-	-	-	-	- 1	-	-	-	-		
o-Xylene**	100 NA	500 NA	100 1,0 NA N		100 NA	3,000 NA	10,000 NA	0.531 0.236	0.0411 0.0262		ļ <u>-      </u>	-	-	<u>  - ]</u>	-	-	-			-	-	-		-		-		<u> </u>	-	-		-		
p-Isopropyltoluene (p-Cymene) Styrene	NA 4	70	NA N. 4 30				NA 10,000	0.236 1.87	0.0262	-	-	-				<u>-</u> -	+	-			-		-	<u> </u>	+-	<u> </u>	-	-	-	-	-	-	<u> </u>	
Tetrachloroethylene	10	30	10 20	10	10	1,000	10,000	3.94	0.297	<u> </u>	<u> </u>	-	-	<u> </u>	-	-	1-1				-	-	- 1 -	-	† <u>-</u>	-	-		-	-		-		
Tetrahydrofuran	NA	NA	NA N		NA	NA	NA	6.67	0.608	-	-	-	-	-	-	-	] - [	-	-	-	-	-	-   -	-	-		-	-		-	-	-	-	
Toluene** Trichloroethylene	500 0.3	500 30	1,000 1,0 0.3 6		2,000 0.3		10,000	1.11 0.402	0.102 0.0359		-	-				-	+ -	-					_		+ -	<del>  -</del>		-		-	-	-	<u>-</u>	
Trichlorofluoromethane (Freon 11)	NA	NA	NA N		NA	NA NA	NA	0.090	0.0135		-	-		1 - 1			<del>1 -</del> 1						-	-	+=-	<del>                                     </del>	-	-		-	-			
Vinyl Chloride	0.7	1.0	0.7 7	,	0.7	60	600	0.0509	0.0085	-	-	-		i - i	-	-	-	-	-	- 1	-	- 1	-   -	-	T -	İ -	-		-		-	-	-	
Volatile Petroleum Hydrocarbons (mg/kg)	400	400	500 50	10	500	500	E 000	70.0	6.67																									
C5-C8 Aliphatics (adjusted) C9-C12 Aliphatics (adjusted)	100 1,000	100	500 50 3,000 3,0		5,000		5,000 20,000	79.6 50.7	5.57 4.24		-	-				<u>-</u> -	+	-					-	<u> </u>	+-	<u> </u>	-	-	-	-	-	-	<u> </u>	
C9-C10 Aromatics	100	100	500 50		500		5,000	13.6	1.69	-		-	-		-	-	-	-	-	- 1	-			-	-	l -	-		-		-	-	-	
Extractable Petroleum Hydrocarbons (mg/kg)																																		
C9-C18 Aliphatics C19-C36 Aliphatics		1,000 3,000	3,000 3,0 5,000 5,0				20,000 20,000	6,890 9,730	305 612		-	-				<u>-</u>	+ -	-					_		+ -	<del>  -</del>		-	-	-	-	-	<u>-</u>	
C11-C22 Aromatics (Adjusted)	1,000	1,000	3,000 3,0				10,000	1,870	188	-	-	-	-	1-1		<u>-</u>	† <del>-</del> †							-	+=-		-	-		-	-			
2-Methylnaphthalene	80	300	80 50		80		5,000	0.632	0.250	-	-	-	-	- 1	-	-	- 1	-	-	- İ	-	- İ	-   -	-	-	İ -	-	-	-	-	-	-	-	-   -
Acenaphthene Acenaphthylene	1,000 600	1,000 10	3,000 3,0 600 1		5,000 600		10,000	0.211 0.354	0.155 0.264			-		-	-	-	-	-			-		-		+=-	-	-	-	-	-	-	-		
Acenaphthylene Anthracene		1,000	3,000 3,0				10,000	0.354	0.264		-	-				-	+ -	-					_		+-	<u> </u>	-	-	-	-	-	-	<u> </u>	
Benzo(a)anthracene	7	7	40 4		300		3,000	4.08	1.31	-		-	-	- 1	-	-	1 - 1	-	-	- 1	-		- † -	-	† -	t -	-		-		-	-	-	
Benzo(a)pyrene	2	2	7 7		30		300	5.20	1.80	-		-		-	-	-	-	-	-	-	-	-	-   -	-	-		-		-		-	-	-	
Benzo(b)fluoranthene Benzo(g,h,i)perylene	1,000	7	40 41 3,000 3,0		300 5,000		3,000 10,000	7.26 3.77	2.39 1.34		-	-				-	+ -	-					_		+ -	-		-	-	-	-	-	<u>-</u>	
Benzo(k)fluoranthene	70	70	400 40				10,000	2.94	1.06	-	-	-	-	1-1		<u>-</u>	† <del>-</del> †							-	+=-		-	-		-	-			
Chrysene	70	70	400 40				10,000	6.32	1.76	-	-	-	-	- 1	_	-	1 - 1		-	- [	-	- [	-   -	-	_	<u> </u>	-	-	-	-	-	-	_	-   -
Dibenz(a,h)anthracene Fluoranthene	0.7 1,000	0.7 1,000	4 4 3,000 3,0		30 5,000		300 10,000	2.06 10.6	0.908 2.16	-	-	-				-	<del>  -  </del>	-	-				-   -		+ -	-	-	-	-	-	-	-	-	
Fluorantinene	1,000	1,000	3,000 3,0				10,000	0.375	0.239			-		┟┋┪	-	<u>-</u>	+=+							<del></del>	+=-	<del>  -</del>				-	-			
Indeno(1,2,3-cd)pyrene	7	7	40 4	0	300		3,000	3.92	1.35	-	-			l - 1	-	-	1 - 1	-	-	- 1	-	- 1	- † -	-	† -	-	-	-			-	-	-	
Phenanthrene	500	500	1,000 1,0				10,000	4.44	0.951	-	-	-	-	-	-	-	-		-	- [	-		-   -	-	-	-		- 1	-	-	-	-		-   -
Pyrene Polychlorinated Biphenyls (mg/kg)	1,000	1,000	3,000 3,0	00 E	5,000	5,000	10,000	8.42	2.06		-			i - i	-	-	<u> </u>			<u> </u>	-	<u>        i                            </u>	- ! -	-	1 -	<u> </u>					-	-	-	
Aroclor-1242	1	1	4 4		4	4	100	2,300	23.3	< 0.337	-	0.1685	< 0.0348	i - i	0.0174	< 0.693	-	0.3465	< 0.175	- (	0.0875	- 1	- 1 -	-	1 -	-	-	-		< 0.0336	-	0.0168	< 0.339	- 0.1695
Aroclor-1248	1	1	4 4		4	4	100	0.206	0.10	0.206	-	-	< 0.0348	-	0.0174	< 0.693	-	NC	< 0.175		0.0875		-   -	-	-	ļ -	-	-	-	< 0.0336	-	0.0168	< 0.339	0.1695
Aroclor-1254 Aroclor-1260	1 1	1	4 4		4	4	100 100	164 1,040	2.79 21.0	< 0.337 3.46	<del>-</del> -	0.1685	< 0.0348 0.0487	 J	0.0174	< 0.693 5.17	<u> </u>	0.3465	< 0.175 0.833	-   (	0.0875		-   -		+-	-			-	< 0.0336 0.0693		0.0168	< 0.339 1.51	- 0.1695 
Total PCBs	1	1	4 4		4	4	100	2,300	43.8	3.666	-	-	0.0487		-	5.17	1 -		0.833				-   -	-	+=-	-	-	-	-	0.0693		-	1.51	
Metals (mg/kg)																																		
Aluminum	NA 00	NA 00	NA N		NA 20	NA 20	NA 200	14,000	9,240	-		-		<u>  - T</u>	-	-	<u> </u>	-	-	-	-	10.50					-0.00	<u> </u>			<u> </u>	-	-	
Antimony Arsenic	20 20	20 20	30 31 20 21		30 50		300 500	112 74.1	5.12 9.27	-		-	-	<del>├</del> ┈┤		-	+ -						JJ 0.265 J	< 0.506 4.71	UJ 	0.253	< 0.486 2.48		0.243		-	-		
Barium	1,000	1,000	3,000 3,0				10,000	4,750	217	-	-	-	-	-	-	-	† <del>-</del> †	-	-	-	-		J	58.8	+	<del> </del>	22.3	J+	-		-	-	-	
Beryllium	90	90	200 20	10	200	200	2,000	1.96	0.556	-	-	-	-	-			1 - 1		-	-		0.698	J	0.756	ļ -	<u> </u>	0.596	- 1	-	-	-	-		
Cadmium Calcium	70 NA	70 NA	60 60 NA N		60 NA	60 NA	1,000	26.3	4.52 5,190		-		-	ļ <u> </u>	-		<del>  -  </del>		-	-		0.297	_	0.562	<del>  -</del>	<u> </u>	0.32	-	-	-		-	-	
Calcium Chromium	NA 100	NA 100	NA N. 200 20		NA 200		NA 2,000	12,000 560	5,190 74.1	-	<del>  -</del>	-	-	1 - 1	-						-	5.2	 J	7.59	+=-	<u> </u>	4.82	<u>-                                   </u>	-			-		
Cobalt	NA	NA	NA N	A	NA	NA	NA	25.0	9.84	-	<u> </u>	-	-	- 1	-	-	1 - 1	-	-	-	-				† <u>-</u>	-		-	-	-	-	-	-	
Copper	NA	NA	NA N		NA		NA	3,500	1,142	-	-	-	-	- 1	-	-	-		-	- [	-		-   -		-	-	ļ	-	-	-	-			-   -
Iron	NA 200	NA 200	NA N. 600 60		NA 600		NA 6,000	120,000 13,100	52,400 873		ļ	-	-	-		-	+			-			 J	351	<del>  -</del>		37.8		-	-	-	-		
Magnesium	NA NA	NA NA	NA N		NA NA	NA NA	NA	13,100 4,600	3,030	-	-	-	-	<del>                                     </del>			+				-		J	331	+	<del>-</del> -	31.0	-	-		-	-		
Manganese	NA	NA	NA N	A	NA	NA	NA	1,300	681		<u> </u>	-	-	<u> </u>	-	-	1 - 1		-	- İ	-	i	-   -	1	-	<u> </u>	<u> </u>		-	-	-	-	-	-   -
Nickel	600	600	1,000 1,0				10,000	495	80.4	-	-	-	-	<u> </u>	-	-	-		-	- [	-			13.9	-	-	4.9			-	-	-	-	
Selenium Silver	400 100	400 100	700 70 200 20		700 200		7,000 2,000	4.77 6.10	1.35 0.932		ļ <u>-</u>	-	-	<del>   </del>		-	+				-		JJ 0.265 0.265	< 0.506 < 0.506		0.253 0.253	< 0.486 < 0.486		0.243 0.243	-	-	-		
Thallium	8	8	60 6	0	80	80	800	3.30	0.796	-	-	-	-	- 1	-	-	† <del>-</del> †	-	-	-	-		- 0.53	< 1.01	+	0.505	< 0.972	-	0.486		-	-	-	
Vanadium	400	400	40 41	0	50		7,000	291	42.9		-	-	-	-		-	1 - 1		-	-	-		J	28.1	-	<u> </u>	10.1	J+	-	-	-	-		-   -
Zinc Hexavalent Chromium	1,000 100	1,000 100	3,000 3,0 200 20		5,000 200		10,000	10,000 5.71	1,073 4.04	-	-	-	-	<u> </u>	-	-	-			-	-		-	241	J- -		118	-	-	-	-	-		
Mercury Mercury	20	20	30 3		30		300	5.71 72.8	4.04 3.67	-		-	-	-		-	+	-					- +	0.335	+	<del> </del>	0.0168				-	-		
/			3						1		1						• •							3.000	•	•	2.3.00							

Notes:

mg/kg = Milligrams per kilogram.

If bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

Only constituents that have been detected at least once among relevant samples presented.

\* The highest detected concentration between primary and field duplicate samples is presented.

\* Constituent was analyzed via multiple methods. The highest detected concentration is presented.

< Constituent is not detected; value presented is the laboratory sporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "Ux" indicates that a non-detect result was qualified as estimated. A "I" indicates that a detected result was qualified as estimated. A "I" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Excosure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected

failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 15.1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

						Maximum			VCSB-1	WCSB-2	WCSB-	3	WCSB-3	WCSB	-4	W	CSB-4	WCSB-5	i	WCSB-I	6	WCSB-6	WCSB-7	,	V	VCSB-7	WCSB-7
Analysis		MCP Method 1/3	Soil Standard	ds		Detected	Exposure Point		/26/2013	9/26/2013	9/26/20		9/26/2013	9/26/20			2/2013	9/25/2013		9/25/201		9/25/2013	9/25/2013			25/2013	11/22/2013
Analytes		S-2 & S-			UCL	Concentration	Concentrations (mg/Kg)		7-8	14-15	5-6		7-8	6-7			7-8	5-6		4-5		8-9	4-5			7.5-8	7-8
	GW-2 GW-3	GW-2 GV	V-3 GW-2	GW-3	UUL	(mg/Kg)	(9/1.9/	Result	Qual. 1/2 RL Result	Qual. 1/2 RL	Result Qual.	1/2 RL	Result Qual. 1/2 RL	Result Qual	1/2 RL	Result (	ual. 1/2 RL Resi	ult Qual.	1/2 RL	Result Qual.	1/2 RL Resi	ılt Qual. 1/2 RL	Result Qual.	1/2 RL	Result	Qual. 1/2 RL	Result Qual. 1/2
Volatile Organic Compounds	0 700	0 0	100	F 000	40.000	0.45	0.040	. 0.00070	0.004005 +0.400	0.054	.0.00000	1 0 004545	· · ·	.0.00004	0.004405			- !	ı	- 0 00000	1 0 004 445 0 00	200   0 0040	.0.00050		. 0 00440		
1,2,4-Trichlorobenzene 1,2-Dichlorobenzene	6 700 100 300		00 6 00 100	5,000 300	10,000 10,000	2.45 2.10	0.210 0.181	< 0.00273 < 0.00273	- 0.001365 < 0.108 - 0.001365 < 0.108	- 0.054 - 0.054	< 0.00303 < 0.00303	0.001515 0.001515		< 0.00281 < 0.00281	0.001405 0.001405		2.4 2.1	5	-	< 0.00283 < 0.00283	0.001415 < 0.00 0.001415 < 0.00			0.00128 0.00128	< 0.00418 < 0.00418	- 0.00209 - 0.00209	
1,3-Dichlorobenzene	100 300		00 200	500	5,000	15.8	1.32	< 0.00273	- 0.001365 <b>0.0189</b>	- 0.034	< 0.00303	0.001515		< 0.00281 -	0.001405			.8	<del> </del>	< 0.00283	0.001415 < 0.00			0.00128	< 0.00418	- 0.00209	
1,4-Dichlorobenzene	1 80		00 1	2,000	10,000	24.2	2.02	< 0.00273	- 0.001365 < 0.108	- 0.054		0.001515		< 0.00281 -	0.001405		24.		<del>-</del>	< 0.00283	0.001415 < 0.00			0.00128		- 0.00209	-   -   -
2-Butanone (MEK)	50 400		00 50	400	10,000	0.0403	0.0193	0.0286	J+ < 1.08	- NC	< 0.0303	0.01515	-   -   -	< 0.0281 -	0.01405	- 1	< 13	3.7	NC	< 0.0283	0.01415 0.02		< 0.0256	0.0128	< 0.0418	- 0.0209	-   -
Acetone	50 400	50 4	00 50	400	10,000	0.167	0.0566	0.0965	< 10.8	- NC	0.00815	i -	- [ - [ -	0.0966		- [	< 13	37	NC	0.0219	0.07	)4	0.00914		0.075		-   -   -
Benzene**	40 40		00 400	1,000	10,000	0.526	0.0473	0.00156	0.012		< 0.00303	0.001515	0.0616	< 0.00281	0.001405		0.52		ļ	< 0.00283	0.001415 <b>0.002</b>		< 0.00256	0.00128	< 0.00418	- 0.00209	-   -
Carbon Disulfide	NA NA		A NA	NA	NA	0.0241	0.00583	0.00822	< 0.108	- NC	< 0.00303	0.001515		< 0.00281 -	0.001405		<1.3		NC	< 0.00283	0.001415 <b>0.005</b>		< 0.00256	0.00128	0.00834		
Chlorobenzene	3 100		00 3	100	10,000	105	8.76	< 0.00273	- 0.001365 < 0.108	- 0.054	< 0.00303	0.001515		0.00449 0.000817	-		10: < 1.:			< 0.00283	0.001415 < 0.00			0.00128 NC	< 0.00418	- 0.00209	
cis-1,2-Dichloroethylene Ethylbenzene**	0.1 100 500 500	0.1 5 1,000 1,0	00 0.1	500 3,000	5,000 10,000	0.000817 0.0281	0.000817 0.00376	< 0.00273 0.000546	NC < 0.108 < 0.108	- NC - NC	< 0.00303 < 0.00303	NC 0.001515	0.0281	< 0.00281 -	0.001405			37 37	NC NC	< 0.00283 < 0.00283	NC < 0.00 0.001415 <b>0.001</b>		< 0.00256 < 0.00256		< 0.00418 < 0.00418	- NC - 0.00209	
m+p Xylene**	100 500		100 1,000	3,000	10,000	0.0281	0.00370	< 0.00545	- 0.002725 < 0.216	- NC	< 0.00606 -	0.00303	< 0.202 - NC	< 0.00562 -	0.00281		<2.			< 0.00566	0.001413 0.001		5 < 0.00512	0.00126	< 0.00836	- 0.00209	
Methyl tert-Butyl Ether (MTBE)**	100 100		00 100	500	5,000	0.00268	0.00157	< 0.00273	- 0.001365 < 0.108	- NC		0.001515		< 0.00281 -	0.001405		<1.			< 0.00283	0.001415 < 0.00		< 0.00256	0.00128	< 0.00418	- 0.00209	
Naphthalene**	20 500	20 1,0	100 20	3,000	10,000	1.16	0.228	0.00993	< 1.08	- 0.54	0.0486		0.107	< 0.0281	0.01405	- 1	1.1	6		< 0.0283	0.01415 < 0.02	62 0.0131	< 0.0256	0.0128	< 0.0418	- 0.0209	
o-Xylene**	100 500		100 100	3,000	10,000	0.00244	0.00159	< 0.00273	0.001365 < 0.108	- NC	< 0.00303	0.001515	< 0.101 NC	< 0.00281	0.001405		<1.3		NC	< 0.00283	0.001415 < 0.00			0.00128	< 0.00418	0.00209	
p-Isopropyltoluene (p-Cymene)	NA NA	NA N		NA	NA	0.00369	0.00167	< 0.00273	- 0.001365 < 0.108	- NC	0.00369	<u> </u>		< 0.00281 -	0.001405		<1.		NC	< 0.00283	0.001415 < 0.00			0.00128	< 0.00418	- 0.00209	-   -
Tetrachloroethylene	10 30		00 10	1,000	10,000	0.0266	0.00512	< 0.00273	- 0.001365 < 0.108	- NC	0.00373			< 0.00281	0.001405		<1.			< 0.00283	0.001415 < 0.00				< 0.00418	- 0.00209	
Toluene**	500 500		00 2,000		10,000	0.0306	0.00514	0.00147	< 0.108	- NC	< 0.00303 -	0.001515	0.0306	< 0.00281 -	0.001405		<1.3		NC NC	< 0.00283	0.001415 0.003		< 0.00256	0.00128	< 0.00418	- 0.00209	-   -
Trichloroethylene Volatile Petroleum Hydrocarbons (mg/k	0.3 30	0.3	0 0.3	60	600	0.00206	0.00149	< 0.00273	- 0.001365 < 0.108	- NC	< 0.00303	0.001515		< 0.00281	0.001405		-   -   <1.3	37	i NC	< 0.00283	0.001415 < 0.00	202 0.0013	< 0.00256	0.00128	< 0.00418	NC	
C5-C8 Aliphatics (adjusted)	100 100	500 5	00 500	500	5.000	2.27	1.09	- 1		T _ T _	_   _	1	1.2		1	1 _ 1	1.4	8	I -		- 2.2	, , , , ,	0.0523	1 _ 1	_ 1	_   _	
C9-C12 Aliphatics (adjusted)	1,000 1,000	3,000 3,0			20,000	0.733	0.270	<del>                                     </del>				·	< 0.344 - 0.172		<del></del>		< 33		NC	<del>                                     </del>	- 0.03		< 0.283	0.1415	_		
C9-C10 Aromatics	100 100	500 5		500	5,000	33.1	6.96	- 1					1.12			- 1		.1	-		- 0.25		0.0362		- 1		
Extractable Petroleum Hydrocarbons (n																				<u> </u>							
C9-C18 Aliphatics	1,000 1,000	3,000 3,0			20,000	2,390	265	< 6.4	- 3.2 -				< 6.52 - 3.26	< 7.08 -	3.54	- 1	239			-   -	< 6.1			2.67		-   -	
C19-C36 Aliphatics	3,000 3,000	5,000 5,0			20,000	3,230	366	< 6.4	- 3.2 -				12.7	13.6 -		-	323		<u> </u>		5.4		4.91		-	-   -	
C11-C22 Aromatics (Adjusted)	1,000 1,000		5,000	5,000	10,000	1,150	186	21.5		-   -		<u> </u>	< 6.88 - 3.44	< 7.35 -	3.675		115	50	<u> </u>		- < 6.3	5 - 3.175	< 5.65	2.825		_	
2-Methylnaphthalene	80 300 1,000 1,000	80 5 3,000 3,0	00 80 100 5,000	500 5,000	5,000 10.000	4.50 3.86	1.67 1.54					ļ <u>-</u>							<del> </del>	<del>  </del>				ļ			
Acenaphthene Acenaphthylene	600 10		0 600	10	10,000	3.90	1.56	<u> </u>  -				. <u> </u>							<b></b>					<del> </del>	-		
Anthracene	1,000 1,000	3,000 3,0			10,000	7.75	2.75	- i		<del>                                     </del>		·	-   -   -			- 1			<del>-</del>			<u> </u>		†	i		-   -   -
Benzo(a)anthracene	7 7		0 300	300	3,000	7.27	2.68	- 1					-   -   -		-			-	-					-	- 1	-   -	-   -
Benzo(a)pyrene	2 2	7	7 30	30	300	5.81	2.16	- [				İ -			<u> </u>	- 1		-	-					İ -	- j		
Benzo(b)fluoranthene	7 7		0 300	300	3,000	6.40	2.33	-				-			-	- [		-	-					-	-		-   -
Benzo(g,h,i)perylene	1,000 1,000		5,000		10,000	2.38	1.05	<u> </u>				. <u>ļ</u>							<u> </u>					ļ			
Benzo(k)fluoranthene	70 70		3,000		10,000	4.12	1.63	<u> </u>				. ļ			_	_ <u> </u>			ļ		<u> </u>			ļ			
Chrysene Dibenz(a,h)anthracene	70 70 0.7 0.7		00 3,000 4 30	3,000 30	10,000 300	10.3 2.18	3.69 0.983	-				. <u> </u>							ļ					ļ	-		
Fluoranthene	1.000 1.000	3,000 3,0			10,000	18.7	6.5			<del> </del>	+	·							<u> </u>		<u> </u>			<del> </del>			
Fluorene	1,000 1,000		00 5,000		10,000	7.08	2.62	- 1		<del> </del>		·	-   -   -						<del></del>	-   -	†			†	-		-   -
Indeno(1,2,3-cd)pyrene	7 7		0 300	300	3,000	2.70	1.16	- 1				-			-	<b>+</b> - <b>+</b>		-	-	-   -				-	-		_   _
Phenanthrene	500 500		3,000		10,000	16.2	5.74	- [	-   -   -	]			<u> </u>			- 1				- İ -	İ	<u> </u>		<u> </u>	- 1	- 1 -	- [ - ]
Pyrene	1,000 1,000	3,000 3,0	5,000	5,000	10,000	12.6	4.50					-						-						-	-		
Polychlorinated Biphenyls (mg/kg)																											
Aroclor-1242	1 1		1 4	4	100	36.2	0.521	< 0.0443	- 0.02215			. <u> </u>	< 0.0449 0.02245		0.02405				ļ <u>-</u>					<u> </u>		_   -	0.0258
Aroclor-1248	1 1		1 4 1 4	4	100	0.0914	0.0238	< 0.0443	- 0.02215			. <del> </del>	< 0.0449 - 0.02245		0.02405				<del> </del>	-   -				ļ			< 0.0374 - 0.0
Aroclor-1254 Aroclor-1260	1 1		1 4	4	100 100	33.4 195	0.448 2.14	< 0.0443 0.0307	- 0.02215 				< 0.0449 - 0.02245 < 0.0449 - 0.02245	< 0.0481 0.0282	0.02405									-	-		< 0.0374 - 0.0 < 0.0374 - 0.0
Total PCBs	1 1		1 4	4	100	195	4.01	0.0307		<del>                                     </del>	+	- <del> </del>	ND	0.0282 -		<del>                                     </del>			<del> </del>		<del>                                     </del>			† <u>-</u>			0.0258 0.0
Metals (mg/kg)					.50	.00									<u> </u>						:			:	:	:	, , ,
Antimony	20 20	30 3	0 30	30	300	18.8	2.10	-		-   -	-   -		-   -   -	-   -		< 0.592	UJ 0.296	-	-	-   -		-   -	-   -	-	-	-   -	< 0.561 UJ 0.2
Arsenic	20 20		0 50	50	500	65.3	5.48	- [		] -   -	-   -	<u> </u>	- I - l -		<u> </u>	< 1.18	0.59		<u> </u>	- 1 -		<u> </u>		I	- 1	- <u>I</u> - <u> </u>	1.79
Barium	1,000 1,000		5,000		10,000	1,390	64.9					ļ -				10.4			ļ					ļ		-   -	14.1
Beryllium	90 90		00 200	200	2,000	2.48	0.494	ļļ		ļ		.ļ <u>-</u>				0.0806			ļ	ļ <u>-</u>	ļ			ļ			0.263
Cadmium Chromium	70 70					406	14.4	-				. <del> </del>							÷	·				<del> </del>			
	100 100 200 200					303 2,490	19.8 234	-											<u>.</u>					<u> </u>	-		6.36 J- 7.65
Lead Nickel	600 600						234 44.3								<del></del>				÷					<u> </u>			
Selenium	400 400				7,000	2.05	0.459	-								< 0.592			-					-			< 0.561 - 0.2
Silver	100 100					26.9	1.25	-				-			T -						<del></del>			İ -			< 0.561 - 0.2
Vanadium	400 400	40 4	0 50	50	7,000	526	28.8	- 1				-	- [ - [ -			5.44		-		- [ -		<u> </u>		<u> </u>	- 1		13.8
Zinc	1,000 1,000	3,000 3,0	5,000	5,000	10,000	13,800	854	- [										-		- [ -				-	-	- [ -	43 J+
Mercury	20 20	30 3	0 30	30	300	15.8	0.658	- T		-   -		-				< 0.129	UJ 0.0645	-	-	-   -				- 1			0.0133 J-
																·	. —										

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mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

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\* = The highest detected concentration between primary and field duplicate samples is presented.

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										T																											
			MCP I	Method 1/	3 Soil St	tandards			Maximum Detected	Exposure Point	ıt	WCSB-8 9/25/2013		WCSB-11 11/22/2013		WCSB-12 11/22/2013		SB-14 2/2013			SB-16 2/2013		WCSB-18		WCSB-2 11/22/20			NCSB-20 1/22/2013			WCSB-22 11/22/2013	<b>S-2</b> 7/28/2014			<b>S-2</b> 8/2014	7	<b>S-2</b> /28/2014
Analytes	S-1 &	S-1 &	S-2	& S-	2 &	S-3 &	S-3 &		Concentration	Concentrations	s	7-8		6-7		5.5-6		7-8			2/2013 3-7		7-8	3	11/22/20			16-17			4.5-5	3-4			6-7		11-12
	GW-2		GV				GW-3	UCL	(mg/Kg)	(mg/Kg)	Result	Qual. 1/2 RL	Result	Qual. 1/2 F	RL Result	Qual.			RL		ual. 1/2 RL	Result	Qual.	1/2 RL	Result Qual.		Result	Qual.	1/2 RL	Result		Qual. 1/2	RL		Qual. 1/2 RL	Result	Qual. 1/2 RL
Volatile Organic Compounds												<u> </u>		<u> </u>																							
1,2,4-Trichlorobenzene 1,2-Dichlorobenzene	6 100				000		5,000 300	10,000	2.45 2.10	0.210 0.181	< 0.00307 < 0.00307						< 0.00219 < 0.00219	- 0.001 - 0.001		< 0.00304 < 0.00304	- 0.00152 - 0.00152		<b></b>	-									· 				
1,3-Dichlorobenzene	100				00		500	5,000	2.10 15.8	1.32	< 0.00307						- < 0.00219 - < 0.00219	- 0.001		< 0.00304	- 0.00152 0.00152		<u> </u>			<u> </u>					ļ <del> </del>	<u> </u>			-   -		
1,4-Dichlorobenzene	1	80			00			10,000	24.2	2.02	< 0.00307					T - 1	- < 0.00219	- 0.001		< 0.00304	- 0.00152		<b>†</b>	-				-			;						
2-Butanone (MEK)	50	400	5		00		400	10,000	0.0403	0.0193	0.0403					- i	- < 0.0219	- 0.010		< 0.0304	- 0.0152		<u> </u>	-		-		-						Î	- 1 -		
Acetone	50				00		400	10,000	0.167	0.0566	0.167						- 0.00989	-   -		0.0118	-		<u> </u>								ļļ	-   -	·				-   -
Benzene** Carbon Disulfide	40 NA	40 NA			100 NA		1,000 NA	10,000 NA	0.526 0.0241	0.0473 0.00583	0.00102 0.0241					-	- < 0.00219 - < 0.00219	- 0.001 - 0.001		< 0.00304 0.0053	- 0.00152		<u> </u>	-					-				·			-	
Chlorobenzene	1NA 3	100			00		100	10,000	105	8.76	< 0.00307	- 0.001535					- < 0.00219 - < 0.00219	- 0.001		< 0.00334	0.00152		<del>                                     </del>			+							- 			-	
cis-1,2-Dichloroethylene	0.1	100			00		500	5,000	0.000817	0.000817	< 0.00307					- 1	- < 0.00219	- NO		< 0.00304	NC		<b>†</b> -	-		<b>†</b> -		-	-					- 1		-	
Ethylbenzene**	500	500	1,0					10,000	0.0281	0.00376	< 0.00307						- 0.00167	- ] -		0.000619			<u> </u>	-					-			- }		[			- ] -
m+p Xylene**	100				000		3,000	10,000	0.00581	0.00321	< 0.00613					<u> </u>	- 0.00581	-   -		0.00249	-		<u> </u>					-	-							-	
Methyl tert-Butyl Ether (MTBE)** Naphthalene**	100 20	100 500			000		500 3,000	5,000 10,000	0.00268 1.16	0.00157 0.228	< 0.00307 0.00497					<u> </u>	- < 0.00219 - < 0.0219	- 0.001 0.010		<b>0.00268</b> < 0.0304	0.0152		<del> </del>		0.76 J		0.691			 	\$ <del> </del>	<u> </u>	·		-   -		
o-Xylene**	100				000		3,000	10,000	0.00244	0.00159	< 0.00497					-	- 0.00244	0.010		< 0.0304	- 0.00152		<del>  -</del>			<del></del>			-								
p-Isopropyltoluene (p-Cymene)	NA	NA			NA.		NA	NA	0.00369	0.00167	< 0.00307					-	- < 0.00219	- 0.001		< 0.00304	- 0.00152		-			-			-							-	
Tetrachloroethylene	10	30			00		1,000	10,000	0.0266	0.00512	< 0.00307					<u> </u>	- 0.0266	-   -		< 0.00304	- 0.00152		Ţ	-		-		-						[			
Toluene**	500	500		········		2,000		10,000	0.0306	0.00514	< 0.00307					<u> </u>	- 0.0104			< 0.00304	- 0.00152		<u> </u>			<u> </u>			-		ļ		·			-	
Trichloroethylene Volatile Petroleum Hydrocarbons (mg/l	0.3	30	0.	3	60	0.3	60	600	0.00206	0.00149	< 0.00307	0.001535	-	<u> </u>			- 0.00206			< 0.00304	- 0.00152	L	<u> </u>				-					<u> </u>		<u> L</u>		-	-   -
C5-C8 Aliphatics (adjusted)	100	100	50	10 5	000	500	500	5,000	2.27	1.09	0.451	I - I -	T			- 1				-	-   -	-	T -	-		1 -	T	- 1	_ 1					- 1	-   -	-	-   -
C9-C12 Aliphatics (adjusted)	1,000							20,000	0.733	0.270	0.733					-		-   -			-   -		<u> </u>	-					-								
C9-C10 Aromatics	100	100	50	0 5	00	500	500	5,000	33.1	6.96	0.291					-							-			-			-								
Extractable Petroleum Hydrocarbons (																																					
C9-C18 Aliphatics C19-C36 Aliphatics	1,000 3.000				000	5,000 5		20,000	2,390 3,230	265 366	< 6.76 <b>53.8</b>	3.38		_		<u> </u>	- 45.3 - 35.2						<del> </del>	ļ <u>-</u>	193 J 283 J		< 10.5 19.2		5.25			<del>  -  </del>	·	<u>-</u>			
C11-C22 Aromatics (Adjusted)	1,000							10,000	1,150	186	18.2	<u> </u>					- 33.2	_   _		-			<del>                                     </del>		605 J		16.6		-								
2-Methylnaphthalene	80	300			000		500	5,000	4.50	1.67				<del>                                     </del>		T - T	- < 0.487	- 0.24	35		- 1		†	<del>  -</del>	4.5 J		0.271	- 1				T - T -			- 1 -		-   -
Acenaphthene	1,000							10,000	3.86	1.54						[	- < 0.487	- 0.24			[		<u> </u>		3.86 J		< 1.05		0.525			-		[			- [ -
Acenaphthylene	600							10,000	3.90	1.56							- < 0.487	- 0.24	35	-	-   -		<u> </u>	-	3.9 J		< 1.05	-	0.525					<u> </u>		-	
Anthracene Benzo(a)anthracene	1,000	1,000			000 40		5,000 300	10,000 3,000	7.75 7.27	2.75 2.68						ļ <u>-</u>	- <b>0.283</b> - < 0.487	- 0.24	35				<b>.</b>	ļ <u>-</u>	7.75 J 7.27 J		<b>0.226</b> < 1.05	<b></b>	0.525				·				
Benzo(a)pyrene	2	2	7	·	7		30	300	5.81	2.16						- 1	- 0.131	- 0.24		-			+		5.81 J		< 1.05		0.525							-	
Benzo(b)fluoranthene	7	7	4	) ,	40	300	300	3,000	6.40	2.33						- 1	- 0.0714						† -	-	<b>6.4</b> J	-	< 1.05	-	0.525						- 1 -		-   -
Benzo(g,h,i)perylene	1,000				000		5,000	10,000	2.38	1.05	-			-   -		<u> </u>	- < 0.487	- 0.24		-	- [ -		<u> </u>		<b>2.38</b> J		< 1.05		0.525					- [	- ] -	-	-   -
Benzo(k)fluoranthene	70 70	70			00		3,000	10,000	4.12	1.63						ļļ.	- < 0.487	- 0.24					<u> </u>		4.12 J		< 1.05		0.525				·		-   -		
Chrysene Dibenz(a,h)anthracene	0.7	70 0.7			00		3,000	10,000 300	10.3 2.18	3.69 0.983						<del>                                     </del>	- < 0.487 - < 0.487	0.24 0.24		-			<del> </del>	ļ <u>-</u>	10.3 J 2.18 J	<del></del>	< 1.05 < 1.05		0.525 0.525				·				
Fluoranthene	1,000						5,000	10,000	18.7	6.5						† <u>†</u>	- 0.469						<del> </del>		18.7 J	<del></del>	0.331	-				<del>                                     </del>					
Fluorene	1,000				000		5,000	10,000	7.08	2.62						- 1	- < 0.487	0.24	35				† -	-	<b>7.08</b> J	-	< 1.05	-	0.525								
Indeno(1,2,3-cd)pyrene	7	7	4		40		300	3,000	2.70	1.16	-						- < 0.487	- 0.24	35		-   -		<u> </u>	-	<b>2.7</b> J		< 1.05		0.525					L		-	
Phenanthrene	500							10,000 10,000	16.2	5.74						<del>  -  </del>	- 0.494 - 0.361						<del> </del>		16.2 J 12.6 J		< 1.05		0.525				·			-	
Pyrene Polychlorinated Biphenyls (mg/kg)	1,000	1,000	3,0	00 3,	000	5,000	5,000	10,000	12.6	4.50		-   -					- U.361	-   -		-	-   -				12.0 J		< 1.05	_	0.525					-			
Aroclor-1242	1	1	4		4	4	4	100	36.2	0.521	< 0.0475	0.02375	< 0.0341	UJ 0.017	0.601	J		-   -		-	-   -	< 0.0401	UJ	0.02005	< 19.2	9.6	< 0.357	UJ	0.1785	< 0.0417	UJ 0.02085 < 0.0487	- 0.024	435	< 0.0417	- 0.02085	< 0.0552	- 0.0276
Aroclor-1248	1	1	4		4		4	100	0.0914	0.0238	< 0.0475	0.02375	< 0.0341	UJ 0.017	'05 < 0.222	UJ	NC	-   -			- [ -		UJ	0.02005	< 19.2	NC	< 0.357	UJ	NC	< 0.0417	UJ 0.02085 <b>0.0177</b>	J		0.00628	- [ -	0.0914	
Aroclor-1254	1	1	4		4		4	100	33.4	0.448	< 0.0475		< 0.0341			J					-   -	< 0.0401	UJ	0.02005	< 19.2	9.6	< 0.357	ļ	0.1785	< 0.0417		0.024		< 0.0417	- 0.02085	< 0.0552	- 0.0276
Aroclor-1260 Total PCBs	1 1	1	. 4		4		4	100 100	195 195	2.14 4.01	< 0.0475 ND			UJ 0.017 		UJ 	0.111					0.0467 0.0467	J	<u> </u>	47.4 47.4	<u> </u>	0.321 0.321	J 		0.126 0.126				< 0.0417 0.00628	0.02085 	0.0363 0.1277	
Metals (mg/kg)			-		7	4	4	100	190	4.01	NU	1 - 1 -	NU		1.009			-   -			-   -	0.0407			41.4		0.321			U.120	0.0/5/			0.00020		V. 12//	-   -
Antimony	20	20	3	0 :	30	30	30	300	18.8	2.10	-	- -	< 0.544	UJ 0.27	2	- 1		-   -		-	-   -		l -	l -		1 -		- 1	- 1			-   -		- 1	-   -	-	-   -
Arsenic	20	20			20		50	500	65.3	5.48		l - i -	4.67			<u> </u>		-   -			- j -		<u> </u>	-		<u> </u>		- 1				<u> </u>		1	- [ -		- 1 -
Barium	1,000							10,000	1,390	64.9			24.1					-   -					<u> </u>	-		<u> </u>		-	-				· 				
Beryllium Cadmium	90 70	90 70			:00 60		200 60	2,000 1,000	2.48 406	0.494 14.4		<u> </u>	0.368 0.249			<del>  </del> -							<del> </del>	ļ <u>-</u>		<u> </u>		<b>  </b>				<del>  </del>	·				
Cadmium	100				100		200	2,000	303	14.4		<del>                                     </del>	7.16			<del>                                     </del>		-   -			-   -		<del>  -</del>	<del>                                     </del>		<del></del>					<del></del>		: <del> </del>		_	-	
Lead	200				00			6,000	2,490	234			18.2	<u> </u>		† - †							† -			<u> </u>					ļ				-   -		
Nickel	600	600	1,0	00 1,	000	1,000	1,000	10,000	902	44.3	-	I - I -	8.01			<u> </u>		- ]			- [ -		<u> </u>			Ţ						I - I -	·	j	- [ -		-   -
Selenium	400				00		700	7,000	2.05	0.459	-		< 0.544			ļ - Ĭ		-   -		- [	-		ļ - <u> </u>	-		ļ -	-	- [				-   -	·	- [	-   -	-	-   -
Silver	100							2,000	26.9	1.25	-		< 2.72 5.68	- 1.30	6	<del>  -  </del>		-   -			<del>-  </del>		<del> </del>	<u> </u>	<u> </u>			-					·		-	-	
Vanadium Zinc	400 1,000				40 000	50 5,000		7,000 10,000	526 13,800	28.8 854		<del>                                     </del>	5.68 88.3	 J+		<del>                                     </del>					-   -		<del>  -</del>	<del>                                     </del>		<del>  -</del>							·		<u>-  </u>		
Mercury	20				30		30	300	15.8	0.658		<del>                                     </del>	0.0158			-							<del> </del> -	-		<b>†</b>		-				† - † -	<del> </del>	-			
													+			·							•				+										

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							Maritan		S-3			S-3	S-3		S-4		S-5		S-6			S-6	<b>\$-7</b>			S-8 S-9		S-9		S-10	
			MCP Me	thod 1/3 Soil	Standards		Maximum Detected	Exposure Point	7/28/201	14		7/28/2014	7/28/2014		7/28/2014	4	7/28/2014		7/28/2014			7/28/2014	7/28/20			7/28/2014 7/28/2014		/28/2014		7/28/2014	,
Analytes				S-2 &	S-3 & S-3		Concentration	Concentrations (mg/Kg)	3-4			6-7	11-12		3-4		3-4		3-4			6-7	6-7			6-7 3-4		6-7		3-4	
	GW-2	2 GW-3	GW-2	GW-3	GW-2 GW-	3	(mg/Kg)	(99)	Result Qual.	1/2 RL	Result	Qual. 1/2 RL	Result Qual. 1/2 RL	Result	Qual.	1/2 RL	Result Qual.	1/2 RL Result	Qual.	1/2 RL	Result	Qual. 1/2 RL R	Result Qual	1/2 RL	Result	Qual. 1/2 RL Result Qual.	1/2 RL Result	Qual. 1/2 I	RL Resul	lt Qual.	1/2 RL
Volatile Organic Compounds  1,2,4-Trichlorobenzene	6	700	6	3,000	6 5,00	0 10,00	00 2.45	0.210					1 1									1 1						<u> </u>		-	
1,2,4- Michiorobenzene	100				100 300			0.210		<del>                                     </del>		······································				<u> </u>			<del>                                     </del>						-					<del>-   -</del>	-
1,3-Dichlorobenzene	100			500	200 500			1.32		-		-   -		-	-	†	-   -		t - t					<u> </u>						<del></del>	-
1,4-Dichlorobenzene	1	80		400	1 2,00			2.02		-		- [ -	- I - I -	-	-		- [ -		I						-						i
2-Butanone (MEK)	50			400	50 400			0.0193		<u> </u>				-		<u> </u>	-   -		ļ <u> </u>					<u> </u>	-						-
Acetone  Benzene**	50 40			400 200	50 400 400 1,00			0.0566 0.0473		ļ <u>-</u>						ļ <u>-</u>			<b> </b>  -			<del>  -   -  </del>		- <b>-</b>							
Carbon Disulfide	NA				NA NA			0.00583								<u> </u>			<del> </del>						-						
Chlorobenzene	3	100	3	100	3 100			8.76		-				-	-	†			†												-
cis-1,2-Dichloroethylene	0.1		0.1	500	0.1 500			0.000817					-	-	-				<u> </u>					ļ							-
Ethylbenzene**	500				1,000 3,00			0.00376		ļ <u>-</u>				-		<u> </u>			ļ <u> </u>					<u> </u>							
m+p Xylene**  Methyl tert-Butyl Ether (MTBE)**	100 100				100 3,00 100 500			0.00321 0.00157		ļ <u>-</u>						<u> </u>			<b> </b>												-
Naphthalene**	20				20 3,00			0.00137								ļ			├ <u>-</u>						-					<del>-   -</del>	
o-Xylene**	100				100 3,00			0.00159		-				-	-	-	-   -		† - †					-						-	
p-Isopropyltoluene (p-Cymene)	NA		NA		NA NA	NA		0.00167		-				-	-				<u> </u>		-			-	-			-   -			
Tetrachloroethylene	10			200	10 1,00			0.00512								<b></b>		-   -	<del>  -  </del>												
Toluene** Trichloroethylene	500 0.3				2,000 3,00 0.3 60			0.00514 0.00149						-		-			<del>                                     </del>			- <del>  </del>									-
Volatile Petroleum Hydrocarbons (mg/k		30	0.3	UU	0.0 00	000	0.00200	0.00149				_ i _		_			- ; -			-	-				_						
C5-C8 Aliphatics (adjusted)	100	100	500	500	500 500	5,00	0 2.27	1.09		-				-	T -				- 1		-			-	-	-   -   -			-	-	-
C9-C12 Aliphatics (adjusted)	1,000			3,000	5,000 5,00			0.270		-				-	-	-			] - [						-						
C9-C10 Aromatics	100	100	500	500	500 500	5,00	0 33.1	6.96		-					-	<u> </u>			-				-   -			-   -   -					
Extractable Petroleum Hydrocarbons (I C9-C18 Aliphatics	(mg/kg) 1.000	1.000	3.000	3.000	5.000 5.00	0 20.00	0 2.390	265							-		_   _		I _ I			1 1									
C19-C36 Aliphatics	3.000				5,000 5,00			366		ļ <u>.</u>						<u> </u>			<u>-</u>					- <u> </u>							-
C11-C22 Aromatics (Adjusted)	1,000				5,000 5,00			186		-				-	-	-														-	-
2-Methylnaphthalene	80	300	80	500	80 500	5,00	0 4.50	1.67		-				-	-	-	-   -		<u> </u>					-	-			-   -		<u> </u>	-
Acenaphthene	1,000				5,000 5,00			1.54		<u> </u>				-		<u> </u>			ļ <u>-</u> ļ.					<u> </u>							
Acenaphthylene	600 1,000				600 10 5,000 5,00			1.56 2.75						-		<del> </del>			<u> </u>					<u> </u>							
Anthracene Benzo(a)anthracene	7	7	3,000		300 300			2.68		ļ <u>-</u>						<u> </u>			<del>  -</del>											<del>-  </del>	
Benzo(a)pyrene	2	2	7	7	30 30			2.16		-				-	-	-			l - l					-						-	
Benzo(b)fluoranthene	7	7	40	40	300 300	3,00	0 6.40	2.33		-		- 1 -	-	-	-	<u> </u>			i - i			i - i -								<u> </u>	-
Benzo(g,h,i)perylene	1,000				5,000 5,00			1.05						-		ļ			ļļ.					<u>-</u>							·
Benzo(k)fluoranthene	70 70				3,000 3,00 3,000 3,00			1.63 3.69		ļ <u>-</u>						<del> </del>			ļļ.			<u> </u>		<u> </u>							
Chrysene Dibenz(a,h)anthracene	0.7			400	30 30			0.983		<u> </u>						<del>                                     </del>			<del>                                     </del>											<del>-   -</del>	
Fluoranthene	1,000				5,000 5,00			6.5		·						†			<del> </del>												·
Fluorene	1,000				5,000 5,00	0 10,00	0 7.08	2.62		-			-   -   -	-	-	-			<u> </u>					-						<u> </u>	-
Indeno(1,2,3-cd)pyrene	7	7	40	40	300 300			1.16		ļ <u>-</u>				-		<u> </u>			<u> </u>					<u> </u>							
Phenanthrene Pyrene	500	500 1,000		1,000 3,000	3,000 3,00 5,000 5,00			5.74 4.50						-		<b> </b>			<del>  </del> -					<u> </u>							
Polychlorinated Biphenyls (mg/kg)	1,000	1,000	3,000	3,000	5,000 5,00	10,00	12.0	4.00									-   -				-		-   -		-						-
Aroclor-1242	1	1	4	4	4 4	100	36.2	0.521	< 0.416	0.208	< 0.062	- 0.031	< 0.0421 - 0.0210	5 < 0.18	2 -	0.091	0.628 J	< 0.0359	-	0.01795	< 0.0551	- 0.02755 < 0	0.0544	0.0272	< 0.0373	0.01865 < 0.0346	0.0173 < 0.0383	- 0.019	915 < 0.036	69	0.01845
Aroclor-1248	1	1	4	4	4 4			0.0238	< 0.416	NC	< 0.062		< 0.0421 0.0210			0.091	< 0.455	NC < 0.0359	Ţ <u>-</u> İ	0.01795			0.0544	0.0272	< 0.0373		0.0173 < 0.0383	- 0.019			0.01845
Aroclor-1254	1	1	4	4	4 4			0.448	< 0.416	0.208	< 0.062	<b>;</b>	< 0.0421 0.0210			0.091	< 0.455	0.2275 < 0.0359	ļ <u> </u>	0.01795			0.0544	0.0272	< 0.0373		0.0173 < 0.0383	- 0.019			0.01845
Aroclor-1260 Total PCBs	1 1	1	4	4	4 4 4 4			2.14 4.01	0.674 J+ 0.674 -		< 0.062 ND		< 0.0421 - 0.0210 ND	5 0.0931 0.0931		<u> </u>	1.82 2.448	0.174 0.174	<del>                                     </del>		< 0.0551 ND		0.0544 ND	0.0272	0.0702 0.0702	0.00827 0.00827	0.00855 0.00855	J			
Metals (mg/kg)			4	4	4 4	100	190	4.01	0.074		IND		UNI	0.093			Z.440	0.174			IND		ND -		0.0702	0.00021	- 0.00000		0.039	· !	
Antimony	20	20	30	30	30 30	300	18.8	2.10		1 -	< 0.947	- 0.4735	-   -   -	-	I -	-	-   -				2.53	J	-   -	-	-	-   -   -	1	-   -	0.47	J-	-
Arsenic	20			20	50 50			5.48		-	11.9			-	-	-	- ! -		<u> </u>		8.09	J		-	-						-
Barium	1,000				5,000 5,00			64.9			13.6			-		<u> </u>			ļ		7.76	J		-	-						-
Beryllium Cadmium	90 70			200 60	200 200 60 60			0.494 14.4		ļ	<b>0.686</b> < 0.379	0.1895				<del> </del>			ļ <u>-</u> ļ.		0.508 0.195	J							1.14 0.442		
Chromium	100				200 200			19.8		<del> </del>	7.13				+	<del> </del>			<del>                                     </del>		0.195 4.75	 J									-
Lead	200			600	600 600	6,00		234		†	148		_	-	-	†			†		72	J			<del> </del>			-   -	34.3		
Nickel	600	600	1,000	1,000	1,000 1,00			44.3			20	- <b>i</b> -	- <u> </u> -				<u> </u>		[		14.4	l - l - J						-   -	6.19		_
Selenium	400				700 700			0.459		-	< 0.947	- 0.4735	- [ - [ -		-	ļ	-   -		ļ - ļ		< 0.582			ļ -				-   -	< 0.56		0.2825
Silver	100				200 200			1.25			< 0.947	- 0.4735				ļ <u>-</u>			ļļ		< 0.582	- 0.291					-   -		- 0.00		0.2825
Vanadium Zinc	400 1,000				50 50 5,000 5,00			28.8 854			14 96.7					<u> </u>			<del>├</del> ─ <u></u> ╤─┼		9.76 35.8	J							9.15 141		
Mercury	20				30 30			0.658			0.0285					<del> </del>			╂╌╌┼		< 0.119	- 0.0595			<del> </del>				0.018		
moroury	20	20	30	JU	50 30	300	10.0	0.000	<u> </u>		0.0200						L	-		·	- 0.113	0.0000							0.010	- !	

### . .

mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

 $^{\star}$  = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.

< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

											S-10		S-11		S-11		S-12		S-12		S-13		S-13		S-1			S-14		S-15		S-15	1 6	5-16
			MCP Me	thod 1/3 S	oil Standards			Maximum Detected	Exposure Point	t 7/	28/2014		7/28/201	4	7/28/20		7/28/201		7/28/2014		7/28/2014		7/28/2014		7/28/2			7/28/2014		7/28/2014	7	/28/2014		8/2014
Analytes		S-1 &			S-3 &		UCL	Concentration	n Concentrations (mg/Kg)	}	6-7		3-4		6-7		3-4		6-7		3-4		6-7		3-4			6-7*		3-4		6-7		3-4
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	- OOL	(mg/Kg)	(9/1.9/	Result	Qual. 1/2 RL	Resu	lt Qual.	1/2 RL	Result Qual.	1/2 RL Re	esult Qual.	1/2 RL Res	sult Qual.	1/2 RL Result	Qual. 1/2 F	RL Result	Qual.	1/2 RL	Result Qua	l. 1/2 RL	Result	Qual. 1/2 RL	Result	Qual. 1/2 F	L Result	Qual. 1/2 RL	Result	Qual. 1/2 RL
Volatile Organic Compounds		700		2.000	6	5.000	40.000	0.45	0.040	-				ı	<u>.</u>			!			1 1					i						· ·		
1,2,4-Trichlorobenzene 1,2-Dichlorobenzene	6 100	700 300	6 100			5,000 300	10,000 10.000	2.45 2.10	0.210 0.181							-							╂										-	
1,3-Dichlorobenzene	100	100	200			500	5,000	15.8	1.32					<u> </u>		- <del> </del>	_   _	† <u>-</u> -					<u> </u>					<u> </u>		<del> </del>				
1,4-Dichlorobenzene	1	80	1	400		2,000	10,000	24.2	2.02				-				-   -					-	1 - 1			-		<u> </u>		† - † -			·	
2-Butanone (MEK)	50	400	50	400		400	10,000	0.0403	0.0193	-	- 1 -			-	- 1 -	-			-   -			-	† - †			i –		<u> </u>		i - i -	- 1	- 1 -	- I	-   -
Acetone	50	400	50	400		400	10,000	0.167	0.0566	-	- l -			-			[		- [ - [				[			-				]	-		-	
Benzene**	40	40	200			1,000	10,000	0.526	0.0473	-	-   -					-	-   -		-   -			-	ļ ļ							<u> </u>	-			
Carbon Disulfide	NA	NA	NA	NA		NA	NA	0.0241	0.00583					ļ		<u> </u>			-   -				<del>  -  </del>			<u> </u>		<u> </u>		ļ			-	
Chlorobenzene	3	100	0.1	100 500		100 500	10,000 5.000	105 0.000817	8.76 0.000817					ļ <u>-</u>									<del>  </del>						-	<del>                                     </del>			- <del></del>	
cis-1,2-Dichloroethylene Ethylbenzene**	0.1 500	100 500	1,000			3,000	10,000	0.000817	0.00376					ļ <u>.</u>				ļ					╟┈┈┼					<u> </u>		<del> </del>				
m+p Xylene**	100	500	100			3,000	10,000	0.00581	0.00370					-			_   _						<del>                                     </del>	-					-	† <u>-</u> † -			-	
Methyl tert-Butyl Ether (MTBE)**	100	100	100			500	5,000	0.00268	0.00157				-			-		†	-   -		T	_	1 - 1		-   -	-		<del> </del>		† – † –	- 1	-   -	- 1	
Naphthalene**	20	500	20	1,000		3,000	10,000	1.16	0.228	-			-	-	- 1 -	-	- 1 -					-	-   Î			-				Ì - Ì -		- 1 -	-	
o-Xylene**	100	500	100			3,000	10,000	0.00244	0.00159					-		-	- [ -		-   - [			_	- ]	-	- [ -	-			-	-   -	- ]		- [	- [
p-Isopropyltoluene (p-Cymene)	NA	NA	NA	NA		NA	NA	0.00369	0.00167					<u> </u>				<u> </u>					<b></b>					<u> </u>	<u></u>	<u> </u>				
Tetrachloroethylene Toluene**	10 500	30	1.000	200		1,000	10,000 10,000	0.0266	0.00512 0.00514														<del> </del>	-										
Trichloroethylene	0.3	500 30	1,000			3,000 60	10,000	0.0306	0.00514					<del> </del>			_   _	+					╫┋┼			<del>.</del>		<u> </u>		<del>-</del>	-			
Volatile Petroleum Hydrocarbons (mg/k		30	0.3	00	0.0	00	000	0.00200	0.00143									<u> </u>																
C5-C8 Aliphatics (adjusted)	100	100	500	500	500	500	5,000	2.27	1.09	- 1	-   -	-	-	-			-   -		-   -			-	-	-	-   -	-	-		-		- 1		- 1	
C9-C12 Aliphatics (adjusted)	1,000	1,000	3,000	3,000	5,000	5,000	20,000	0.733	0.270	-			T	-	- 1 -	-	- ]					-	] - ]			-					-		-	
C9-C10 Aromatics	100	100	500	500	500	500	5,000	33.1	6.96	-			-	-		-	-   -					_	-								-		-	
Extractable Petroleum Hydrocarbons (r															•																	<u> </u>		
C9-C18 Aliphatics	1,000 3,000			3,000 5,000		5,000	20,000	2,390 3,230	265					ļ				<u> </u>					<del> </del> -							<u> </u>			<del> </del>	
C19-C36 Aliphatics C11-C22 Aromatics (Adjusted)	1,000		5,000 3,000			5,000	10,000	3,230 1,150	366 186					-									<u> </u>			<u> </u>								
2-Methylnaphthalene	80	300	80	500		500	5,000	4.50	1.67					ļ <u>-</u>		- <del> </del>	_   _	† <u>-</u> -					<u> </u>					<u> </u>		<del> </del>				
Acenaphthene	1,000		3,000			5.000	10.000	3.86	1.54				-				-   -					-	1 - 1			-		<u> </u>		† - † -			-	
Acenaphthylene	600	10	600			10	10,000	3.90	1.56	- 1	- 1 -			-	- 1 -	-			-   -			-	† - †			i –		<u> </u>		i - i -	- 1	- 1 -	- I	
Anthracene	1,000	1,000	3,000			5,000	10,000	7.75	2.75	-	-   -			-	:		- ] -				I	-	] - [			-				l - l -				'-
Benzo(a)anthracene	7	7	40	40		300	3,000	7.27	2.68	-	-   -			ļ		-	-   -		-   -				<u> </u>			-				<u> </u>	-	-   -	-	
Benzo(a)pyrene	2	2	7	7	30	30	300	5.81	2.16					-				ļ <u>-</u>										<u> </u>		ļ				
Benzo(b)fluoranthene	1,000	7 1,000	40 3,000	40 3,000		300 5,000	3,000 10,000	6.40 2.38	2.33 1.05		+			-		- <del> </del>	-   -	ļ							-   -			<del>                                     </del>		<del>                                     </del>				
Benzo(g,h,i)perylene Benzo(k)fluoranthene	70	70	400			3.000	10,000	4.12	1.63					<u> </u>									<u> </u>							<del>                                     </del>				
Chrysene	70	70	400			3,000	10,000	10.3	3.69		-   -			·	-   -	-		İ			<b>-</b>		††			-		<del></del>		† <u>-</u> † -		- 1 -		
Dibenz(a,h)anthracene	0.7	0.7	4	4	30	30	300	2.18	0.983		-   -		-	-		-			-   -			-	<u> </u>			-				i - i -	-		-	
Fluoranthene	1,000		3,000			5,000	10,000	18.7	6.5		- ] -				- [ -	-	- ]		- [ - [			-	] - [			-				] - ] -	-	- [ -		
Fluorene	1,000		3,000			5,000	10,000	7.08	2.62					-		-						-	-			-					-			
Indeno(1,2,3-cd)pyrene	7	7	40	40		300	3,000	2.70	1.16					<u> </u>	-   -	<u> </u>	-   -	<u> </u>					<u> </u>			<u> </u>				<del>  -  </del>				-
Phenanthrene Pyrene	500 1,000	500 1,000	1,000	1,000		3,000 5,000	10,000 10,000	16.2 12.6	5.74 4.50					<u> </u>		-							<del>                                     </del>							<u> </u>				
Polychlorinated Biphenyls (mg/kg)	1,000	1,000	3,000	3,000	3,000	5,000	10,000	12.0	4.00			-										_				1 -								
Aroclor-1242	1	1	4	4	4	4	100	36.2	0.521	< 0.0362	- 0.0181	< 0.03	71 -	0.01855	< 0.0534	0.0267 < 0.	.0373	0.01865 < 0.0	)359	0.01795 < 0.035	8 0.017	79 < 0.0349	1 - 1	0.01745	< 0.35	0.175	0.0271	J -	< 0.0368	0.018	4 < 0.0353	- 0.01765	< 0.0348	- 0.0174
Aroclor-1248	1	1	4	4	4	4	100	0.0914	0.0238	< 0.0362	0.0181	< 0.03	71	0.01855	< 0.0534	0.0267 < 0.	.0373	0.01865 < 0.0		0.01795 < 0.035	8 0.017	79 < 0.0349		0.01745	< 0.35		< 0.0365	- 0.01825		<b></b>	4 < 0.0353	- 0.01765	< 0.0348	0.0174
Aroclor-1254	1	1	4	4		4	100	33.4	0.448	< 0.0362	0.0181			0.01855	< 0.0534		.0373	0.01865 < 0.0		0.01795 < 0.035			- 1	0.01745	0.569	-	0.324	J	< 0.0368	0.018			< 0.0348	- 0.0174
Aroclor-1260	1 1	1	4	4		4	100	195	2.14	0.044	J -	0.078		<u> </u>	< 0.0534		.0373	0.01865 <b>0.1</b>		< 0.035			<del>  -  </del>	-	< 0.35	0.175	< 0.0365	- 0.01825		<u> </u>	< 0.0353	- 0.01765		-   -
Total PCBs	1	1	4	4	4	4	100	195	4.01	0.044	-   -	0.078	5	-	ND	- h	ND	- 0.1	11 -	ND	-   -	0.04	<u>  -  </u>		0.569		0.3511		0.0069		0.0211	-   -	0.105	-   -
Metals (mg/kg) Antimony	20	20	30	30	30	30	300	18.8	2.10	- 1				1	_ !	_	_ ! _			- 0.526	UJ 0.26	53 <b>2.28</b>	J- I	_	_			_   _		I - I -	- 1		-	_   _
Arumony	20	20	20	20		50	500	65.3	5.48					ļ			_   _	<del>                                     </del>		- 3.1	) UJ U.20	5.1	J- J-		-   -			<b> </b>		-   -				
Barium	1,000		3,000			5,000	10,000	1,390	64.9	-	-   -			<del> </del> -	- 1 -	-	- 1 -	† -   -		- 15.9		5.54	J-		-   -	<u> </u>		<del></del>				-   -		
Beryllium	90	90	200			200	2,000	2.48	0.494		-   -						- j -	<u> </u>	- [ - [	- 0.234		0.202	J-			<u> </u>		<u> </u>		<u> </u>		<u> </u>		
Cadmium	70	70	60	60	60	60	1,000	406	14.4	- 1	- [ -			ļ -	- :	-	- [ -		- [ - <u>[</u>	0.177		0.16	- Î	-		-			-	ļ -	- 1	- [ -	-	-   -
Chromium	100	100	200	200		200	2,000	303	19.8		-   -			ļ		-	-   -	ļ <u> </u>	- <u> </u> - [	3.9	J	17	J-	-	-   -	<u> </u>		<u> </u>	-	<u> </u>	-	-   -		
Lead	200	200	600	600		600	6,000	2,490	234					ļ <u>-</u>	-   -					28.5		22.6	J-			<u> </u>		<u> </u>	<u> </u>	<u> </u>		-   -		-   -
Nickel Selenium	600	600 400	1,000 700			1,000	10,000 7.000	902	44.3 0.459					<u> </u>		-		<u> </u>		- 4.26		1.64 63 < 0.53	<u> </u>					<u> </u>		<u> </u>				
Selenium	400 100	100	200			700 200	7,000 2,000	2.05 26.9	0.459 1.25		_			<del>                                     </del>	<del></del>	+	- + -	+	_   _ +	< 0.526 < 0.526			UJ 	0.265 0.265		<del>                                     </del>		<del>                                     </del>		1 - 1 -				
Vanadium	400	400	40		50	50	7,000	26.9 526	28.8	<u> </u>							-   -	<del>                                     </del>		8.66		2.42		J.205 						<u> </u>				
Zinc	1,000		3,000		5,000	5,000	10,000	13,800	854					ļ   -	- + -	-	-   -	† - † -		58.8		22.3			-   -	-		<u> </u>		† - † -		-   -		
Mercury	20	20	30			30	300	15.8	0.658				-	-		-		<u> </u>	-   -	- 0.0837		0.0262	1 - 1	-		-		i	-	<u> </u>	-	-   -		-   -
H -	•		-		_	-		•	•																									

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mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

City of Quincy - Intervale (226332.01) Table 1-1 thru 1-4 Soil & EPC

Only constituents that have been detected at least once among relevant samples are presented.

\* = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.

< = Constituent is not detected; value presented is the laboratory reporting limit (RL).</p>

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

								Maximum			S-16	S-17		S-17			S-18		S-18		S-19		S-1:	9		S-20		S-20		S-21	S-2°		S-22	
Analytes			MCP Meth	od 1/3 Soil	I Standards			Detected	Exposure Point Concentrations		7/28/2014	7/28/2014	4	7/28/2014			28/2014		7/28/2014		7/28/2014		7/28/2			7/28/2014		7/28/2014	7	/28/2014	7/28/20		7/28/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 & S-	-3 &	UCL	Concentration	(mg/Kg)		6-7	3-4		6-7			3-4		6-7		3-4		6-7			3-4		6-7		3-4	6-7		3-4	
Valadia Occasio Occasionali	GW-2	GW-3	GW-2	GW-3	GW-2 G	W-3		(mg/Kg)		Result	Qual. 1/2 RL	Result Qual.	1/2 RL	Result Qual.	1/2 RL	Result	Qual. 1/2	RL F	Result Qual. 1	/2 RL Result	Qual.	1/2 RL R	Result Qua	al. 1/2 RL	Result	Qual.	1/2 RL Res	sult Qual. 1/2 RL	Result	Qual. 1/2 RL	Result Qua	. 1/2 RL	Result Qual. 1/	2 RL
Volatile Organic Compounds  1,2,4-Trichlorobenzene	6	700	6	3,000	6 5.	.000 10	10,000	2.45	0.210							- 1	- 1				1 - 1		- 1	1		I - I				_   _			_   _	
1,2-Dichlorobenzene	100	300	100	300			10,000	2.10	0.181	-			-			-						-			-	-			-			-		
1,3-Dichlorobenzene	100	100	200	500			5,000	15.8	1.32	- 1			- 1			- 1		-			- 1	-		-	-	t - 1		-	- 1			-		
1,4-Dichlorobenzene	1	80	1	400	1 2,	000 1	10,000	24.2	2.02	- [	-   -					- [	- ]		-		I - I		-   -	-	-	I - I		-   -	- [					
2-Butanone (MEK)	50	400	50	400			10,000	0.0403	0.0193	-	- [ -					- 1	-	-			- [	-		-	-			- [ - [	-			-	-	
Acetone	50	400	50	400			10,000	0.167	0.0566	<u> </u>					-	- 1		-				-				ļļ								
Benzene**  Carbon Disulfide	40 NA	40 NA	200 NA	200 NA			10,000 NA	0.526 0.0241	0.0473 0.00583	-					-			-				-				ļ <u> </u>								 
Chlorobenzene	INA 3	100	INA 3	100			10,000	105	0.00363 8.76																	<del>├</del> ┈┈┤								
cis-1,2-Dichloroethylene	0.1	100	0.1	500			5,000	0.000817	0.000817			<del>                                     </del>		- + -				-	_ + _ + _		+ - +	-		<del></del>	-	l1		- + - +	<del> 1</del>		_   _	1 -		
Ethylbenzene**	500	500	1,000	1,000			10,000	0.0281	0.00376	-	-   -					- 1	-	-	-   -		- 1	-			-	1 - 1		-   -   -	-			-	-   -	
m+p Xylene**	100	500	100	1,000	100 3,	,000 1	10,000	0.00581	0.00321	- 1	- 1 -					-	-	-	-		- 1				-	- 1		-   -	-			-		
Methyl tert-Butyl Ether (MTBE)**	100	100	100	500			5,000	0.00268	0.00157	- ]	- [ -					- 1	-	-	- [ - [		- [	-		-	-			- [ - [	-			-		
Naphthalene**	20	500	20	1,000			10,000	1.16	0.228									-							-	ļļ			- į				·····	
o-Xylene**	100 NA	500 NA	100	1,000			10,000 NA	0.00244 0.00369	0.00159 0.00167																	-						-		
p-Isopropyltoluene (p-Cymene) Tetrachloroethylene	10	NA 30	NA 10	NA 200			NA 10.000	0.00369	0.00167																	<del>                                     </del>						<del>                                     </del>		
Toluene**	500	500	1,000	1,000			10,000	0.0206	0.00512	<del>                                     </del>		<del> </del>														- 1								
Trichloroethylene	0.3	30	0.3	60			600	0.00206	0.00149	i - i	-   -					- 1	-		-   -		<u> </u>	-		-	-	- 1		-   -	-			-	-   -	
Volatile Petroleum Hydrocarbons (mg/k											•			· · · · · ·																· · · · · · · · · · · · · · · · · · ·				
C5-C8 Aliphatics (adjusted)	100	100	500	500			5,000	2.27	1.09	Ļ <u> </u>			<u> </u>		-				-   -	-   -						ļ		-   -   -						
C9-C12 Aliphatics (adjusted)	1,000	1,000		3,000	5,000 5,		20,000	0.733	0.270	ļ <u>-</u>																-		-   -						
C9-C10 Aromatics  Extractable Petroleum Hydrocarbons (r	100	100	500	500	500 5	500 5	5,000	33.1	6.96		-		-		-	- 1		-	_		-		-   -	-				-   -   -		-   -	-   -	-	-	
C9-C18 Aliphatics	1,000	1,000	3,000	3 000	5.000 5.	,000 2	20,000	2.390	265	_					_		_	_	_   _			_			_							_		
C19-C36 Aliphatics	3,000	3,000		5,000	<b></b>		20,000	3,230	366	- 1											1 - 1	-			-	tt		-	- 1			<del>-</del>		
C11-C22 Aromatics (Adjusted)	1,000	1,000	3,000	3,000			10,000	1,150	186	-	-   -		-			- 1	-	-	-   -		- 1	-		-	-	† - †		-   -   -	-			-		
2-Methylnaphthalene	80	300	80	500	80 5	500 5	5,000	4.50	1.67	- ]	-   -					- 1	-	-	-		- 1	-		-	-	] - ]		-   -	- 1			-		
Acenaphthene	1,000	1,000	3,000	3,000			10,000	3.86	1.54	ļ <u> </u>					-	- 1		-			<u> </u>				-	<u> </u>		<u> </u>	<u> </u>					
Acenaphthylene	600	10	600	10			10,000	3.90	1.56	-						-		-				-		-		<u> </u>			-			-		
Anthracene Benzo(a)anthracene	1,000	1,000 7	3,000	3,000 40			10,000 3,000	7.75 7.27	2.75 2.68	-					-			-				-				<del>   </del>								
Benzo(a)pyrene	2	2	7	40 7			300	5.81	2.00																	<del>├</del> ┈┋╌┤								
Benzo(b)fluoranthene	7	7	40	40			3,000	6.40	2.33	- 1					-	- 1		-				-				 								
Benzo(g,h,i)perylene	1,000	1,000	3,000	3,000			10,000	2.38	1.05	-					-	-	-	-			- 1	-		-	-	-		-   -   -	-			-		
Benzo(k)fluoranthene	70	70	400	400			10,000	4.12	1.63	- 1	- [ -					- [	- ]		- [ - [		i - i				-	] - ]		-	- 1			_		
Chrysene	70	70	400	400			10,000	10.3	3.69	-	- [ -					-	-	-	- [ - [		- [	-		-	-	<u> </u>		- [ - [	-			-		
Dibenz(a,h)anthracene	0.7	0.7	4	4			300	2.18	0.983	- !							-	-			_				-	<u> </u>			- [					
Fluoranthene	1,000 1,000	1,000	3,000	3,000 3,000			10,000 10,000	18.7 7.08	6.5 2.62						-			-				-				<del> </del> -								 
Fluorene Indeno(1,2,3-cd)pyrene	7,000	1,000	3,000 40	3,000			3,000	2.70	2.62 1.16				-		-	-		-				-		-		- <u>-</u> -			-			-		 
Phenanthrene	500	500	1,000	1,000			10,000	16.2	5.74						-			-				-				l								
Pyrene	1,000	1,000		3,000			10,000	12.6	4.50	-						-	-				-	-			-	-			-			-		
Polychlorinated Biphenyls (mg/kg)											•								· · ·											· .				
Aroclor-1242	1	1	4	4	ļ		100	36.2	0.521	< 0.0367			4	< 0.0362	0.0181	< 0.0359				01785 < 0.182			0.169	0.0845	< 0.0337	]		0.0234		- 0.0176	< 0.0379	0.01895		
Aroclor-1248	1	1	4	4			100	0.0914	0.0238	< 0.0367	0.01835	< 0.0349	0.01745	< 0.0362	0.0181	< 0.0359				01785 < 0.182			0.169	0.0845	< 0.0337	ļļ		0.0234		0.0176	< 0.0379	0.01895		.0177
Aroclor-1254	1	1 1	4	4	<b></b>		100 100	33.4 195	0.448 2.14	< 0.0367 0.0289	0.01835 	< 0.0349 < 0.0349	0.01745 0.01745	< 0.0362 0.0336	0.0181	< 0.0359 < 0.0359				01785 <b>0.363</b> < 0.182			0.169 <b>0.17</b>	0.0845	< 0.0337 < 0.0337		0.01685 < 0.0 0.01685 < 0.0	0.0234 0468 - 0.0234		0.0176 	< 0.0379 0.0188	0.01895	< 0.0354 UJ 0. < 0.0354 UJ 0.	.0177
Aroclor-1260 Total PCBs	1	1	4	4		4	100	195 195	2.14 4.01	0.0289		< 0.0349 ND		0.0336		< 0.0359 ND				< 0.182 0.363			0.17		< 0.0337 ND	<del>                                     </del>		D	0.0318		0.0188			
Metals (mg/kg)				7			.00			0.0200			:							0.000					.10		I.	-     -	0.3010					
Antimony	20	20	30	30	30	30	300	18.8	2.10	1.52	J		-	-   -		-	-	-	-   -		<u> </u>	-			< 0.517	UJ	0.2585 -	-   -	-			-	-   -	
Arsenic	20	20	20	20			500	65.3	5.48	3.22	J					-			- <u>                                    </u>		<u> </u>		-   -		2.81			- 1 - 1 -	- 1	-   -		-	-   -	
Barium	1,000	1,000	3,000	3,000			10,000	1,390	64.9	6.92	J		- [			- [					- [	-		-	50.5	÷	-   -		- I			-		
Beryllium	90	90	200	200			2,000	2.48	0.494	0.152	J-		ļ <u>-</u>			<u>-</u>									0.272	J-	-   -	<u>-                                    </u>						
Cadmium	70 100	70 100	60 200	60 200			1,000 2,000	406 303	14.4 19.8	0.495 2.72	 .l														0.0713 3.93	]								 
Lead	200	200	600	600			6,000	2,490	19.8 234	2.72 39.5	J J	<del>                                     </del>			-								_   _		3.93 18.6	J- J-						+		
Nickel	600	600	1,000	1,000			10,000	902	44.3	3.59	-	<del></del>	-			- 1			-			-	_   -	-	1.64	- 1		-   -   -				-		
Selenium	400	400	700	700			7,000	2.05	0.459	< 0.566	UJ 0.283		-			- I	-		-   -		- T	-		-	< 0.517	UJ	0.2585 -	-   -	-			-		
Silver	100	100	200	200			2,000	26.9	1.25	< 0.566	- 0.283		-	- <u> </u>		i					<u> </u>	-			< 0.517	l - 1	0.2585 -	<u> </u>				-		
Vanadium	400	400	40	40			7,000	526	28.8	2.11	J		-					-	- ] - ]		_ [				10.3	J-		-   -	- 1					
Zinc	1,000	1,000	3,000	3,000			10,000	13,800	854	66	-   -		<u> </u>								_				55.4	Ļ <u>-</u> _ļ						-		
Mercury	20	20	30	30	30	30	300	15.8	0.658	< 0.113	0.0565	_	-	-   -		-	-		-   -	-   -	-	-		-	< 0.103	-	0.0515 -	-   -   -	-	-   -	_	-	-   -	

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mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

\* = The highest detected concentration between primary and field duplicate samples is presented.

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< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

											Г																										
			MC	P Metho	d 1/3 So	il Standa	rds			Maximum Detected	Exposure Point	1 7	<b>S-22</b> 7/28/2014		<b>S-2</b> 7/28/2			<b>S-23</b> 7/28/2014		<b>S-24</b> 7/28/201		<b>S-24</b> 7/28/2014		<b>S-2</b> 5		7/28/20			S-26 8/2014		<b>S-26</b> 29/2014		8/2014		<b>S-27</b> 28/2014		<b>S-28</b> 7/28/2014
Analytes	S-1.8	k S-1	& !	S-2 &	S-2 &	S-3 &	S-3 8	2	Co	ncentratio	Concentrations	:	6-7		3-4			6-7		3-4		6-7		3-4		6-7			3-4		6-7		3-4		6-7		3-4
	GW-2			GW-2	GW-3	GW-2		uc		(mg/Kg)	" (mg/Kg)	Result	Qual. 1/2 RI	Resu	ılt Qua		Resi	ılt Qual. 1/	2 RL Re	sult Qual.	1/2 RL Re	sult Qual. 1/2	RL Resu	ult Qual	. 1/2 RL								Qual. 1/2 RL		Qual. 1/2	RL Res	ult Qual. 1/2 RL
Volatile Organic Compounds																				·																	
1,2,4-Trichlorobenzene	6			6	3,000		5,000		000	2.45	0.210									-								-			-						
1,2-Dichlorobenzene	100			100	300				000	2.10	0.181	<u> </u>										-   -									-   -						
1,3-Dichlorobenzene 1,4-Dichlorobenzene	100			200	500 400				000	15.8 24.2	1.32 2.02	-																						-			
2-Butanone (MEK)	50			50	400				000	0.0403	0.0193									-   -	-						-							- 1			
Acetone	50			50	400				000	0.167	0.0566		-   -		-	-		T - T		-		- 1 1			-		-	-	-   -	- 1	-   -	<del>-</del>		- İ		-	-   -
Benzene**	40		0	200	200	400	1,000	10,0	000	0.526	0.0473	Ì	- 1 -		-	i		i - i		- ]								- 1		- 1				- 1			
Carbon Disulfide	NA			NA	NA					0.0241	0.00583	- [					-	<u> </u>		- [ -	-	- ]						- [		- [	- [ -   -		- ] -	- [		-	
Chlorobenzene	3		00	3	100		100		000	105	8.76	-								-			-   -						-   -	-		_		-			
cis-1,2-Dichloroethylene Ethylbenzene**	0.1 500			0.1 1,000	500 1,000					0.000817 0.0281	0.000817 0.00376																							-			
m+p Xylene**	100			100	1,000					0.00581	0.00376																			<u> </u>							
Methyl tert-Butyl Ether (MTBE)**	100			100	500					0.00268	0.00157					-		-							-			-		-						·	
Naphthalene**	20			20	1,000	20	3,000	10,0	000	1.16	0.228				-	<u> </u>		<u> </u>		- ]					1		<u> </u>	-	-   -	- 1	-   -   -		- 1 -	- 1			- 1 - 1 -
o-Xylene**	100			100	1,000					0.00244	0.00159				-			<u> </u>							-			-		- [				- !			
p-Isopropyltoluene (p-Cymene)	NA			NA	NA	NA				0.00369	0.00167	_ <b></b>										-   -   -					_ <del> </del>		-   -	ļ				<u> </u>			
Tetrachloroethylene Toluene**	10 500			10 1,000	200 1,000	10 2,000				0.0266	0.00512 0.00514								-		<u> </u>									-						 	
Trichloroethylene	0.3			0.3	60					0.00206	0.00514														+			<del>i.</del>				<u>+</u>	-			·	
Volatile Petroleum Hydrocarbons (mg		J		3.0	50	0.0	00	30		2.00200	3.00140	<u> </u>									•						•							<u> </u>			
C5-C8 Aliphatics (adjusted)	100			500	500	500				2.27	1.09	- [						<u> </u>				- [ - [ -							- ] - [	[	-		- [ -	- [		-	-   -
C9-C12 Aliphatics (adjusted)	1,000				3,000				000	0.733	0.270					-						-		-													
C9-C10 Aromatics	100	10	00	500	500	500	500	5,0	000	33.1	6.96	<u> </u>					-					-     -					<u> </u>	- 1		<u>- 1</u>		i_		<u> </u>	-   -		·   -   -
Extractable Petroleum Hydrocarbons C9-C18 Aliohatics	1.000	0 1.0	00	3.000	3.000	5 000	5.000	20.0	000	2.390	265	1	- 1		- 1 -	1		1 - 1		_	-	_					1			_ 1		-	_   _	_ 1	_   _		
C19-C36 Aliphatics	3,000				5,000				000	3,230	366	i									<u>-</u>				+									<del>-</del>			
C11-C22 Aromatics (Adjusted)	1,000				3,000				000	1,150	186							-												-							
2-Methylnaphthalene	80	30	00	80	500	80	500	5,0	00	4.50	1.67	- i	- 1 -		-	i -		<u> </u>		- 1		- 1		<u> </u>	<u> </u>		i	- İ		- 1	- İ		- 1 -	- i			· i - i -
Acenaphthene	1,000 600	1,0			3,000				000	3.86	1.54	ļ į						<u> </u>		- [		- ]								[	- [		- ] -	- [			
Acenaphthylene				600	10				000	3.90	1.56	-								-   -																	
Anthracene Benzo(a)anthracene	1,000 7	1,0		3,000	3,000 40				000	7.75 7.27	2.75 2.68					<u> </u>		_		-		-   -   -						<u>-</u>			-	<del> </del>					
Benzo(a)pyrene	2		· · · · · · · · · · · · · · · · · · ·	40	40 7	300			00	7.27 5.81	2.08											-   -								_		<u>-</u>				·	
Benzo(b)fluoranthene	7		<del>,</del>	40	40	300				6.40	2.33	i			-																			i			
Benzo(g,h,i)perylene	1,000	1,0			3,000					2.38	1.05	-	-   -		-	-		T - T		-   -		-   -   -		-	T -		-	-		- 1			-   -	- İ		-	
Benzo(k)fluoranthene	70			400	400				000	4.12	1.63	}								- ]		- ]								- [	- [ -   -		-				
Chrysene	70		·	400	400				000	10.3	3.69	į				<u> </u>		-		-							<u> </u>	-						<u>į</u>			
Dibenz(a,h)anthracene	0.7 1,000			4	4				00	2.18 18.7	0.983	<u>-</u>						_			-	-   -   -				-   -		<u>-</u>			-   -   -		-   -	<u>-</u>			_
Fluoranthene Fluorene	1,000				3,000				000	7.08	6.5 2.62								-		-				+												
Indeno(1,2,3-cd)pyrene	7	, 1,0 7		40	40				00	2.70	1.16		- + -					<del>-   -</del>   -		_ + -					+		<del>-</del>			-+			-   -				
Phenanthrene	500	50			1,000				000	16.2	5.74		<u></u>			-		<u> </u>		- 1					<u> </u>			-		- 1	-		-   -	- 1		-	
Pyrene	1,000	1,0	00 :	3,000	3,000	5,000	5,000	10,0	000	12.6	4.50	- 1	- 1 -		-	-		<u> </u>		-				-	T -			- 1		- [				- 1			
Polychlorinated Biphenyls (mg/kg)				_		<b>,</b>			20	20.0	0.504	.0.474	! 0.00	.0.00	F0.	1 004705		45   1 0	4705	470	0.0005	0004	4005 . 2 22	ve !	1 0 04=0	5 .0.0054	0.0477	.0.0050	0.04705	100 !	1 0 0005	240	- 0.01745	.0.0545	1 0 000	575	4 1 4 70
Aroclor-1242 Aroclor-1248	1	1		4	4	4	4	10		36.2 0.0914	0.521 0.0238	< 0.174 < 0.174	0.087 0.087			0.01765 0.01765				.179 .179	0.0895 < 0. 0.0895 < 0.		1905 < 0.03 1905 < 0.03		0.0172	5 < 0.0354 5 < 0.0354	0.0177 0.0177	< 0.0353 < 0.0353		).199 ).199	- 0.0995 < 0.0 - NC < 0.0		0.01745 0.01745	< 0.0515 < 0.0515	0.02		
Aroclor-1254		1		4	4		4		00	33.4	0.448	< 0.174	0.087			0.01765			1725 <b>0.</b> 1				1905 < 0.03		0.0172		0.0177	< 0.0353		).199	- NC < 0.0		0.01745	< 0.0515	0.02		
Aroclor-1260	1	1		4	4					195	2.14	0.507		< 0.03		0.01765				.179	0.0895 <b>0.</b> 0		- 0.092			0.0527		< 0.0353		.828	0.1				J+		
Total PCBs	1	1		4	4	4	4	10	00	195	4.01	0.507	-   -	ND	-		1.3	ı —	0.1	184		035	- 0.092	23	-	0.0527		ND	0.	828	0.1:	21	-   -	0.178		18.7	.7
Metals (mg/kg)													1																								
Antimony	20			30	30				00	18.8	2.10		UJ 0.25		-			-		-													J	0.928			
Arsenic Barium	20 1,000		· · · · · · · · · · · · · · · · · · ·	20 3,000	20 3,000	50 5,000			000	65.3 1,390	5.48 64.9	5.3 8.54	J .l								<del>                                     </del>				+						5.5 28		J		J .l		
Beryllium	90			200	200					2.48	0.494	0.268	J			-		<del>-   -   -</del>			T	_			<del>                                     </del>		-	-	-   -		0.4		J	0.7	J		<del>-   -  </del>
Cadmium	70	7		60	60				00	406	14.4	0.296	-   -		-			<u> </u>		-	<u> </u>	- 1	- 1 -	<u> </u>	1 -		<u> </u>	- 1	-   -	- 1	0.9		-   -	0.473			- 1 - 1 -
Chromium	100			200	200				00	303	19.8	2.32	J			-				- ]		- ] ]			Ţ -		Ţ	- [		- [	10.		J		J	-	
Lead	200			600	600					2,490	234	24.8	J		-			<u> </u>	- ] -	- [	-						ļ -	- <u>[</u>		- [	58.		J		J	-	
Nickel	600			1,000	1,000				000	902	44.3	0.952	-   -			<u></u>			-   -	-			-   -				<u> </u>	<u>-</u>	-   -		14.			13.6			
Selenium Silver	400 100			700 200	700 200	700 200			00	2.05 26.9	0.459 1.25	< 0.5 < 0.5	UJ 0.25 - 0.25						-   -											-	< 0.5 < 0.5		UJ 0.2595 0.2595	< 0.822 < 0.822	UJ 0.4		
Vanadium	400			40	40					26.9 526	28.8	1.46	U.25												<del>-  </del>						< 0.5 15.		U.2095 .l	13.9	.l		
Zinc	1,000				3,000					13,800	854	39.2				-		<del>-   -   -</del>		-	<b>-</b>	_			<del>-</del>	<del></del>			-   -		29			250			
Mercury	20			30	30				00	15.8	0.658	0.0302	-   -		-	-		- 1		-	-				<u> </u>			-		- †	0.0			0.0271		-	
1						-		_					· · · · · · · · · · · · · · · · · · ·									•			•								•	•			

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mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

\* = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration < = Constituent is not detected; value presented is the laboratory reporting limit (RL).</p>

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to cross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

SW-2   Volatile Organic Compounds   1,2.4-Trichlorobenzene   6   1,2-Dichlorobenzene   100   1,3-Dichlorobenzene   100   1,3-Dichlorobenzene   100   1,4-Dichlorobenzene   1   2-Butanone (MEK)   50   Acetone   50   Benzene*   40   Carbon Disulfide   NA   Chlorobenzene   3   cis-1,2-Dichloroethylene   0,1   Ehytbenzene*   500   m*p Xylene*   100   Methyl tert-Butyl Ether (MTBE)**   100   Naphthalene**   20   0-Xylene**   100   P-Iscopropyltoluene (p-Cymene)   NA   NA   NA   NA   NA   NA   NA   N	700 300 100 80 400 400 400 100 500 500 500 500 500 500 500 500 5	6 3 100 2 200 2 1 2 50 4 50 4 200 3 1 3 200 3 1 4 50 4 200 3 200 3 200 3 200 3 200 3 200 3 200 3 200 3 200 3 200 3 200 3 200 3 200 4 200 4 200 4 200 5	W-3 GW-2  000 6  100 100  000 200  000 1  000 50  000 50  000 400  VA NA  000 3  000 0.1  000 1,000  000 100	\$-3 & GW-3  5,000 300 500 2,000 400 400 1,000 NA 100 500	10,000 10,000 5,000 10,000 10,000 10,000 10,000 NA 10,000	Maximum Detected Concentration (mg/Kg)  2.45 2.10 15.8 24.2 0.0403 0.167 0.526 0.0241	Exposure Point   Concentrations   (mg/Kg)	Result	S-28 //28/2014 6-7 Qual	1/2 RL	S-29 7/28/2014 6-7 Result Qual	1/2 RL R	S-30 7/28/201 3-4 Result Qual		7/28/ 6-		7/28/2 3-4 Result Qua	014	7/	\$-31 28/2014 6-7	7/28	3-32 8/2014 3-4 Qual. 1/2	RL Resul	\$-32 7/28/2014 6-7* t Qual. 1/2 RL		/28/2014 3-4 Qual. 1/2 RL	L Result	S-33 7/28/2014 6-7 Qual. 1/2 RL		S-34 7/29/2014 6-7 Qual. 1	1/2 RL	7/2	<b>S-35</b> 29/2014 6-7 Qual. 1/2 RL
S-1 & GW-2	700 700 700 700 700 700 700 700 700 700	6 3 100 200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	W-3 GW-2  000 6  100 100  000 200  000 1  000 50  000 50  000 400  VA NA  000 3  000 0.1  000 1,000  000 100	5,000 300 500 2,000 400 400 1,000 NA 100 500	10,000 10,000 5,000 10,000 10,000 10,000 10,000 NA 10,000	2.45 2.10 15.8 24.2 0.0403 0.167 0.526	0.210 0.181 1.32 2.02 0.0193 0.0566			1/2 RL	Result Qual.	1/2 RL R		1/2 RL	Result Q				Result				RL Resul		Result		L Result		Result		1/2 RL		
Volatile Organic Compounds	700 300 100 80 400 400 40 NA 100 100 500 500	6 3 100 ; 200	000 6 000 100 000 200 00 50 00 50 00 50 00 400 NA NA 00 3 000 0.1 000 1,000	5,000 300 500 2,000 400 400 1,000 NA 100 500	10,000 10,000 5,000 10,000 10,000 10,000 10,000 NA 10,000	2.45 2.10 15.8 24.2 0.0403 0.167 0.526	0.181 1.32 2.02 0.0193 0.0566			  		1/2 RL R		1/2 RL		ual. 1/2 RL	Result Qua	I. 1/2 RL	Result i		Result i C	Jual. 🚦 1/2	RL Resul	t Qual. 1/2 RL	Result	Qual. 1/2 RL	L Result	Qual. 1/2 RL	Result	Qual. 1	1/2 RL	Result (	Qual. 1/2 RL
1.2-Trichlorobenzene         6           1.2-Dichlorobenzene         100           1.3-Dichlorobenzene         100           1.4-Dichlorobenzene         1           2-Butanone (MEK)         50           Acetone         50           Benzene**         40           Carbon Disulfide         NA           Chlorobenzene         3           cis-12-Dichloroethylene         0.1           Ethylbenzene**         500           m+p Xylene**         100           Methyl tert-Butyl Ether (MTBE)**         100           Naphthalene**         20           c-Xylene**         100           p-Isopropyttoluene (p-Cymene)         NA	300 100 80 400 400 40 NA 100 100 500 500 500	100 :: 200 :: 1	000 100 000 200 000 1 000 50 000 50 000 400 VA NA 000 3 000 0.1 000 1,000 000 100	300 500 2,000 400 400 1,000 NA 100 500	10,000 5,000 10,000 10,000 10,000 10,000 NA 10,000	2.10 15.8 24.2 0.0403 0.167 0.526	0.181 1.32 2.02 0.0193 0.0566		   	  		-							rtoouit	Qual. 1/2 RL													
1,3-Dichlorobenzene         100           1,4-Dichlorobenzene         1           2-Butanone (MEK)         50           Acetone         50           Benzene*         40           Carbon Disulfide         NA           Chlorobenzene         3           cis-1,2-Dichloroethylene         0,1           Ethylbenzene**         500           m-p Xylene**         100           Methyl tert-Butyl Ether (MTBE)**         100           Naphthalene*         20           -Xylene**         100           p-isopropyltoluene (p-Cymene)         NA	100 80 400 400 40 NA 100 100 500 100 500	200 1 1 4 50 4 50 4 200 3 NA 3 0.1 1 0.000 1	000 200 000 1 000 50 000 50 000 400 VA NA 000 3 000 0.1 000 1,000 000 100	500 2,000 400 400 1,000 NA 100 500	5,000 10,000 10,000 10,000 10,000 NA 10,000	15.8 24.2 0.0403 0.167 0.526	1.32 2.02 0.0193 0.0566		  			-	- 1 -		:	-   -	-   -	-	- 1	-   -	- 1	-   -			- 1	-   -	-		-	I - I		- 1	-   -
1,4-Dichlorobenzene 1 2-Butanone (MEK) 50 Acetone 50 Benzene** 40 Carbon Disulfide NA Chlorobenzene 3 cis-1,2-Dichloroethylene 0.1 Ethylbenzene** 500 m+p Xylene** 100 Methyl terl-Butyl Ether (MTBE)** 100 Naphthalene* 20 o-Xylene** 100 p-Isopropyttoluene (p-Cymene) NA	80 400 400 40 NA 100 100 500 100 500 500	1	000 1 000 50 000 50 000 400 VA NA 000 3 000 0.1 000 1,000 000 100	2,000 400 400 1,000 NA 100 500	10,000 10,000 10,000 10,000 NA 10,000	24.2 0.0403 0.167 0.526	2.02 0.0193 0.0566		 			-		-		- 1 -		i -	-		- 1	- 1 -			- 1					i - i		- 1	
2-Butanone (MEK)         50           Acetone         50           Benzene**         40           Carbon Disulfide         NA           Chlorobenzene         3           cis-12-Dichloroethylene         0.1           Ethylbenzene**         500           m*p Xylene**         100           Methyl tert-Butyl Ether (MTBE)**         100           Naphthalene**         20           -Xylene**         100           p-Isopropyttoluene (p-Cymene)         NA	400 400 40 NA 100 100 500 500 100 500	50 4 50 200 3 NA 3 0.1 9 1,000 1	00 50 00 50 00 400 NA NA 00 3 00 0.1 000 1,000 000 100	400 400 1,000 NA 100 500	10,000 10,000 10,000 NA 10,000	0.0403 0.167 0.526	0.0193 0.0566				_   _					- [ -			-		- [	[			- [							-	
Acetone	400 40 NA 100 100 500 500 100 500	50 4 200 5 NA 3 0.1 5 1,000 1	00 50 00 400 NA NA 00 3 00 0.1 000 1,000 000 100	400 1,000 NA 100 500	10,000 10,000 NA 10,000	0.167 0.526	0.0566		- :							-						<u></u>											
Benzene**	40 NA 100 100 500 500 100 500	200 : NA 3 0.1 : 1,000 1 100 1	00 400 NA NA 00 3 00 0.1 000 1,000 000 100	1,000 NA 100 500	10,000 NA 10,000	0.526							-   -	<u> </u>					-									_		.			
Carbon Disulfide         NA           Chlorobenzene         3           cis-1,2-Dichloroethylene         0,1           Ethylbenzene**         500           m*p Xylene**         100           Methyl tert-Butyl Ether (MTBE)**         100           Naphthalene**         20           o-Xylene**         100           p-Isopropyltoluene (p-Cymene)         NA	NA 100 100 500 500 100 500	NA 3 0.1 1,000 1	NA NA 00 3 3 600 0.1 000 1,000 000 100	NA 100 500	NA 10,000			-						ļ <u>-</u>		-			-														
Chlorobenzene   3   cis+1,2-Dichloroethylene   0.1   Ethylbenzene*   500   m*p Xylene**   100   Methyl tert-Butyl Ether (MTBE)**   100   Naphthalene**   20   20   20   20   20   20   20	100 100 500 500 100	3 0.1 1,000 1	00 3 00 0.1 000 1,000 000 100	100 500	10,000		0.00583							<del>                                     </del>		_									<u> </u>								
cis-1,2-Dichloroethylene         0.1           Ethylbenzene**         500           m+p Xylene**         100           Methyl tert-Butyl Ether (MTBE)**         100           Naphthalene**         20           o-Xylene**         100           p-Isopropyltoluene (p-Cymene)         NA	100 500 500 100 500	0.1 ,000 1 100 1	00 0.1 000 1,000 000 100	500		105	8.76							ļ <u>.</u>																			
Ethylbenzene** 500  m+p Xylene** 100  Methyl tert-Butyl Ether (MTBE)** 100  Naphthalene** 20  o-Xylene** 100  p-Isopropyltoluene (p-Cymene) NA	500 500 100 500	100 1	000 100		5,000	0.000817	0.000817	-	-			-		<b>†</b> -				<del>-  </del>	<b>+</b>		- 1	-   -	-		- t					† - †			
Methyl tert-Butyl Ether (MTBE)**         100           Naphthalene**         20           o-Xylene**         100           p-Isopropyltoluene (p-Cymene)         NA	100 500			0,000		0.0281	0.00376					-		-		- 1 -		-	-											- 1		-	
Naphthalene**         20           o-Xylene**         100           p-Isopropyltoluene (p-Cymene)         NA	500	100		3,000		0.00581	0.00321	-				-	- ] -	_		-   -		_	-		- ]	)			- [			Ì - Ì -		- 1			
o-Xylene** 100 p-isopropyltoluene (p-Cymene) NA			00 100	500		0.00268	0.00157	-	-			-		<u> </u>		- [ -			- [			<u>- į -</u>			- [			-   -	-	<u> </u>			
p-Isopropyltoluene (p-Cymene) NA			000 20	3,000		1.16	0.228					-										-						_					
	500		000 100	3,000		0.00244	0.00159	-				-		-		-   -													-				-   -
Tatrachloroathylana 40	NA 30		NA NA 100 10	NA 1,000	NA 10,000	0.00369 0.0266	0.00167 0.00512	-						<del> </del>		-   -														<del>                                     </del>			
Tetrachloroethylene 10 Toluene** 500	30 500		00 10			0.0266	0.00512	-						<del>                                     </del>	-			- <del> </del>	+														
Trichloroethylene 0.3			60 0.3	60		0.00206	0.00314	-					_   _	<del>  -</del>							. <u> </u>	_   _			-				-	<del>  -   -</del>		-	
Volatile Petroleum Hydrocarbons (mg/kg)																																	
C5-C8 Aliphatics (adjusted) 100	100	500	00 500	500	5,000	2.27	1.09	-	-					<u> </u>		- [ -			1		-	-   -			- [			-   -				-	
			000 5,000			0.733	0.270		- ]			-				-					. (		-		- 1		-		-	- 1			
C9-C10 Aromatics 100	100	500	500	500	5,000	33.1	6.96	-				-	-   -			-			-		- 1	-   -			- 1					-		<u> </u>	
Extractable Petroleum Hydrocarbons (mg/kg)											, , , , , , , , , , , , , , , , , , ,											<del> </del>											
C9-C18 Aliphatics 1,000 C19-C36 Aliphatics 3,000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	000 5,000		20,000	2,390	265					-		<u> </u>		-									<u> </u>								
C19-C36 Aliphatics 3,000 C11-C22 Aromatics (Adjusted) 1,000			000 5,000 000 5,000			3,230 1,150	366 186							<u> </u>																			
2-Methylnaphthalene 80	300		000 5,000	5,000		4.50	1.67							<del> </del>																			
			000 5,000			3.86	1.54							<del>                                     </del>		_		+				_						-   -		···		·····	
Acenaphthylene 600			10 600	10		3.90	1.56		- 1			-				- 1 -			- 1		- 1	-   -			- 1			-   -					
		3,000 3				7.75	2.75	-				-	-   -	† -		-   -		-	-		- 1				- 1			i - i -		- 1			
Benzo(a)anthracene 7	7	40	40 300	300	3,000	7.27	2.68					-	- [ -	-		- 1 -		-	-						- 1			i - i -		-			
Benzo(a)pyrene 2	2	7	7 30	30		5.81	2.16	-	- ]			-	- [ -			- [ -			- ]		- [	- [ -			- [			ļ - ļ -		- ]		-	
Benzo(b)fluoranthene 7	7		40 300	300		6.40	2.33		-					<u> </u>		-   -		<u> </u>		-   -		-   -						-   -		ļ <u>-</u>		-	
			000 5,000			2.38	1.05							<u> </u>		-														. <del> </del>			
Benzo(k)fluoranthene 70 Chrysene 70			00 3,000 00 3,000			4.12 10.3	1.63 3.69							ļ <u>-</u>		=		_ــ			·{				<u>-</u>								
Chrysene 70 Dibenz(a,h)anthracene 0.7	0.7		4 30	3,000		2.18	0.983							<del> </del>	-	<u> </u>																	
Fluoranthene 1,000			000 5,000			18.7	6.5							<del> </del>											-								
Fluorene 1,000			000 5,000		10,000	7.08	2.62	-	-			-		<u> </u>					-		-				- 1					-		-	
Indeno(1,2,3-cd)pyrene 7	7		40 300	300	3,000	2.70	1.16	-				-		-		-   -		-	- 1			-   -								- 1		-	
Phenanthrene 500			000 3,000			16.2	5.74	-				-				- [ -			- [			- [ -			-			ļ - <u>ļ</u> -				-	
	1,000	3,000 3	000 5,000	5,000	10,000	12.6	4.50		]					-				-							-								-   -
Polychlorinated Biphenyls (mg/kg)					400	00.0	0.504	.0.001		0.447	.40.0	0.4	0.040	1 0 4000	.0.07	1 0 100	.0.0000		.0.0050	0.04705	.00010 !	!	74 0.55	7   000	.0.0010	1 000-			. 0 050-	1 1 -	0.0000	0.0454	1 0000-
Aroclor-1242 1 Aroclor-1248 1	1		4 4	4	100	36.2 0.0914	0.521	< 0.834		0.417 NC	< 18.8		0.813	0.4065	< 0.37	0.185	< 0.0368	0.0184		- 0.01765 - 0.01765		0.01 0.01		i		0.0174 0.0174	15 < 0.037				0.0269 <		- 0.0227
Aroclor-1248 1 Aroclor-1254 1	1	4	4 4	4	100 100	33.4	0.0238 0.448	< 0.834 < 0.834		0.417	< 18.8 < 18.8		0.813 0.813	NC 0.4065	< 0.37 < 0.37	NC 0.185	< 0.0368 < 0.0368	0.0184 0.0184	< 0.0353 < 0.0353	- 0.01765 - 0.01765	< 0.0348	0.01				- 0.0174					0.0269 < 0.0269 <		0.0227 0.0227
Aroclor-1260 1	1		4 4	4		33.4 195	2.14	6.49		0.417	195		5.88	0.4000	1.5	U.100 	0.271 -	U.U104 	< 0.0353	- 0.01765	0.0383	0.01			< 0.0349	- 0.0174			< 0.0538			0.11	0.0227
Total PCBs 1	1		4 4	4		195	4.01	6.49	- 1		195		5.88	†	1.5	-   -	0.271 -		ND ND		·{				ND	- 0.0174			ND				
Metals (mg/kg)													-																				
Antimony 20	20	30	30 30			18.8	2.10	0.972	J-			-		-	2.27	J			- ]		- [	[			- [					-		-	-   -
Arsenic 20	20		20 50	50	500	65.3	5.48	3.8	J-			-	- ! -	<u> </u>	2.58	J		<u> </u>	- 1		- [	- [ -			- [			<u> </u>		- 1			
}				5,000		1,390	64.9	14.6	J-	[		-	-   -	<u> </u>	31.4	J			<u> </u>			-   -	-		<u> </u>					;			
Beryllium 90			00 200	200		2.48	0.494	0.235	J-					ļ <u>-</u>	0.327	J-	<b></b>					<u></u>			<u> </u>			_   -   -					
Cadmium 70	70		60 60	60		406	14.4	0.62						<del>  -</del>	7.79	-   -					·		-										
Chromium         100           Lead         200			00 200	200 600		303 2,490	19.8 234	7.01 48.1	J- .l-					<del> </del>	7.09	J L			<del>                                     </del>		<del>  </del>				<u> </u>					<u> </u>			
Nickel 600	600		000 1,000			2,490 902	44.3	48.1 3.7	J- 					<del>                                     </del>	9.63	u 		<del></del>	+		<del>                                     </del>				<u> </u>					+			
Selenium 400	400		000 700	700		2.05	0.459	0.696	J-					†	< 0.573 U	JJ 0.2865			++		- 1	_   _			- t					<del>  -  </del>			_   _
Silver 100			00 200	200		26.9	1.25	< 0.619		0.3095		-	-   -	-	< 0.573	- 0.2865		<del>-  </del>	<del>                                     </del>		· <del> </del>	-   -	-		+ t			<b>+</b> - + -	-				-   -
Vanadium 400	400		40 50	50		526	28.8	2.83	J-			-	-   -	-	5.34	J		-	- 1		-			<u> </u>	- 1		-	-   -		-		-	
Zinc 1,000	1,000	3,000 3	000 5,000	5,000	10,000	13,800	854	61.2	- 1				- Ì -	<u> </u>	279	-   -					j	- <u>]</u> -	-	- 1 -				-   -					
Mercury 20	20	30	30 30	30	300	15.8	0.658	< 0.132		0.066		-	-   -	-	0.153	-   -		-	-		- 1	-   -								-			-

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mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

City of Quincy - Intervale (226332.01) Table 1-1 thru 1-4 Soil & EPC

Only constituents that have been detected at least once among relevant samples are presented.

 $^\star$  = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.
< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual " column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

			MCD.	ath a d c	2 6-11 6411			Maximum			S-36		S-36		S-3	7		S-37		S-38	S-3	39		S-39		S-40		S-40			S-41		S-41		S-42	
Analytes					3 Soil Standards			Detected	Exposure Point Concentrations		7/29/2014		7/29/2014	4	7/29/2	014		7/29/2014		7/29/2014	7/29/2	2014	7/:	29/2014		7/29/2014		7/29/20			9/2014		/29/2014		7/29/201	
Analytes	S-1 & GW-2	S-1 & GW-3	S-2 GW	& S- 2 G	2 & S-3 & N-3 GW-2	S-3 & GW-3	UCL	Concentration (mg/Kg)	(mg/Kg)	D It	3-4*	D !!	6-7	4/0.01	3-		D II	6-7	D II	6-7	3-4			6-7	l Decit	3-4	4/0 DI	6-7	4/0 DI		3-4	D. D. I	6-7	D It	3-4	4/0.51
Volatile Organic Compounds	GW-2	GW-3	GW	2 6	V-3 GVV-2	GVV-3		(Hig/Ng)		Result	Qual. 1/2 RL	Result	Qual.	1/2 RL	Result Qua	II. 1/2 RL	Result	Qual. 1/2 RL	Result	Qual. 1/2 RL	Result Qua	al. 1/2 RL	Result	Qual. 1/2 R	L Result	Qual.	1/2 RL	Result Qual.	1/2 RL	Result (	Jual. 1/2	RL Result	Qual. 1/2 RL	Result	Qual.	1/2 RL
1,2,4-Trichlorobenzene	6	700	6	3,	000 6	5,000	10,000	2.45	0.210				1 - 1	-		-							- 1	- 1 -	-	- 1		-   -		- 1	1		-   -		1 -	I -
1,2-Dichlorobenzene	100				00 100	300	10,000	2.10	0.181			-	1 - 1	-		i -	-					· i -	- 1	- 1 -	-	-	-		-	- 1	- 1			-	<u> </u>	
1,3-Dichlorobenzene	100	100	20		00 200	500	5,000	15.8	1.32			-		-								-	[		-								- [ -			
1,4-Dichlorobenzene	11	80	1		00 1	2,000	10,000	24.2	2.02		<u> </u>							<u> </u>			<u></u>		_ <u></u>												ļ	<b></b>
2-Butanone (MEK)	50 50	400			00 50	400 400	10,000 10,000	0.0403 0.167	0.0193 0.0566					-								·	- <u>-</u>	-   -						-			-   -		ļ	ļ <u>-</u>
Acetone Benzene**	40	400 40	50 20		00 50 00 400	1,000	10,000	0.167	0.0566	·																			<u></u>						<u> </u>	ļ <u>-</u>
Carbon Disulfide	NA	NA	N/		IA NA	NA	NA	0.0241	0.00583																										<del>  -</del>	ļ
Chlorobenzene	3	100			00 3	100	10,000	105	8.76					-			-									-									-	
cis-1,2-Dichloroethylene	0.1	100	0.		00 0.1	500	5,000	0.000817	0.000817			-	- 1	-		-	-		-			-   -	- 1	-   -		-	-		-	-	-		- İ -	-	† -	-
Ethylbenzene**	500	500	1,0			3,000	10,000	0.0281	0.00376				Î - Î	-		-		- 1 -				-	- 1	-   -	-	-		- ] -		- ]	[		- [ -		-	[ -
m+p Xylene**	100	500			000 100	3,000	10,000	0.00581	0.00321	-		-	<u> </u>	-			-						-		-	-	-			-	-		- [ -	-		
Methyl tert-Butyl Ether (MTBE)**	100	100			00 100	500	5,000	0.00268	0.00157					-			-					·		-   -					ļ <u>-</u>					-	<u> </u>	<u> </u>
Naphthalene**	20	500			000 20	3,000	10,000		0.228										-							-									ļ	<b> </b>
o-Xylene**	100 NA	500 NA	10 N/		000 100 IA NA	3,000 NA	10,000 NA	0.00244 0.00369	0.00159 0.00167																	-			-		-				<del>  -</del> -	<u> </u>
p-Isopropyltoluene (p-Cymene) Tetrachloroethylene	10	NA 30	N		00 10	1,000	10,000	0.00369	0.00167														- <del> </del>						+					·	<del> </del> -	
Toluene**	500					3,000	10,000		0.00514	-	<del>                                     </del>			-			-		-			-			-	-	-			-				-	†- <u>-</u> -	.;
Trichloroethylene	0.3	30	0.		0.3	60	600	0.00206	0.00149			-	T - 1	-		-	-	- 1 -	-		T - T -	-	- i		-	-	-	-   -		- 1				-	† -	-
Volatile Petroleum Hydrocarbons (mg/	kg)																													•						
C5-C8 Aliphatics (adjusted)	100				00 500	500	5,000	2.27	1.09				<u> </u>						-								-		-						ļ	.
C9-C12 Aliphatics (adjusted)	1,000					5,000	20,000	0.733	0.270					-								-	_	-   -		-								-	ļ	. j
C9-C10 Aromatics	100	100	50	) 5	00 500	500	5,000	33.1	6.96				-				-			-   -	- 1 -	<u> </u>	- 1		-	-	-	<u> </u>	-						<u> </u>	
Extractable Petroleum Hydrocarbons ( C9-C18 Aliphatics	(mg/kg) 1,000	1,000	3,0	0 2	000 5,000	5,000	20,000	2,390	265						1	-					-	- i						_   _							1	
C19-C36 Aliphatics	3,000					5,000	20,000		366																										<del> </del> -	<u> </u>
C11-C22 Aromatics (Adjusted)	1,000				000 5,000	5,000	10,000	1,150	186		<del> </del>			-															·							l
2-Methylnaphthalene	80				00 80	500	5,000	4.50	1.67					-								-   -	- 1	-   -	-	-				- 1			- 1 -	-	†	İ -
Acenaphthene	1,000			0 3,	000 5,000	5,000	10,000	3.86	1.54				- 1			-						-			-										T -	
Acenaphthylene	600	10			0 600	10	10,000		1.56		- [ -		<u> </u>	-							- [ -	· [ -	- [	- I -	-			-   -	-	- [	<u>[</u>		- [ -			
Anthracene	1,000	1,000				5,000	10,000		2.75													·			-										ļ	<u> </u>
Benzo(a)anthracene	7	7	40		0 300 7 30	300	3,000	7.27	2.68	<u> </u>	<u> </u>			-																					<u> </u>	<b></b>
Benzo(a)pyrene Benzo(b)fluoranthene	7	7	40		7 30 10 300	30 300	300 3,000	5.81 6.40	2.16 2.33	<u> </u>																									<u> </u>	ļ <u>-</u>
Benzo(g,h,i)perylene	1,000				000 5,000	5,000	10,000	2.38	1.05		1 - 1 -					+													+						╫╌	<del>-</del>
Benzo(k)fluoranthene	70				00 3,000	3,000			1.63		<del>                                     </del>						-									_				-				-	<u> </u>	l
Chrysene	70		40		00 3,000	3,000	10,000	10.3	3.69				- 1	-		-	-					·   -			_	-				-				-	-	-
Dibenz(a,h)anthracene	0.7	0.7	4		4 30	30	300	2.18	0.983				1 - 1			-						-	- 1		-	-									-	-
Fluoranthene	1,000				5,000	5,000		18.7	6.5				] - [			_					- ] -	- ]		- ] -	-	-							- 1 -		I -	-
Fluorene	1,000				5,000	5,000	10,000	7.08	2.62			-					-		-				- [	_	-	-	-							-	ļ -	
Indeno(1,2,3-cd)pyrene	7	7	40		0 300	300	3,000	2.70	1.16	<u> </u>													_ <u> </u>								.=				<u> </u>	<b></b>
Phenanthrene Pyrene	500 1,000			0 1, 0 3,	000 3,000 000 5,000	3,000 5,000	10,000 10,000	16.2 12.6	5.74 4.50	<u> </u>													-  <u>-</u> -								.=				ļ	ļ
Polychlorinated Biphenyls (mg/kg)	1,000	1,000	3,0	υ <b>ა</b> ,	3,000	5,000	10,000	12.0	4.50		- -	_			- 1 -						-   -				-		-	-   -	-	<u> </u>					<u> </u>	حرّ ا
Aroclor-1242	1	1	4		4 4	4	100	36.2	0.521	< 0.0405	- 0.02025	0.0377	·   _	- 1	< 0.0388	0.0194	< 0.0694	0.0347	< 0.0381	- 0.01905	< 0.0352	0.0176	< 0.0386	0.019	3 < 0.0356	- 1	0.0178	< 0.0443	0.02215	< 6.98	3	.49 < 0.0351	- 0.01755	< 0.181	1 -	0.0905
Aroclor-1248	1	1	4		4 4	4	100		0.0238	< 0.0405	. 4			0.0224	< 0.0388	0.0194	< 0.0694	0.0347		- 0.01905		0.0176		- 0.019		L		< 0.0443		< 6.98		IC < 0.0351	- 0.01755			0.0905
Aroclor-1254	1	1	4		4 4	4	100	33.4	0.448	< 0.0405				0.0224	< 0.0388	0.0194	< 0.0694	0.0347		- 0.01905		0.0176	< 0.0386	- 0.019	3 < 0.0356	-	0.0178	< 0.0443		< 6.98	3	.49 < 0.0351	- 0.01755	< 0.181		0.0905
Aroclor-1260	1	1			4 4	4		195	2.14	0.00811	. <del></del>	0.132		-	<b>0.011</b> J		0.349		0.0456		0.0201		0.0705	-   -	0.0000			< 0.0443	0.02215	42.4		< 0.0351	0.01755			
Total PCBs	1	1	4		4 4	4	100	195	4.01	0.00811	-   -	0.1697	'   -	-	0.011	-	0.349	-   -	0.0456		0.0201		0.0705		ND		-	ND	-	42.4	-	ND	-   -	1.06	<u> </u>	<u>i -</u>
Metals (mg/kg)					0 00	200	000	40.0	0.10																			-		44.0						
Antimony	20 20				30 30 20 50	30 50	300 500	18.8 65.3	2.10																					11.3 10.8						. į
Arsenic Barium	1,000		3,0						5.48 64.9		<u>  -   -</u>												- <del>  -</del>							10.8 358					<del>  -</del>	
Beryllium	90				00 5,000	200	2,000	2.48	0.494	<del> </del>	<del>                                     </del>			<b> </b>			+												+	0.623				·	<del>  -</del>	<u> </u>
Cadmium	70				60 60	60	1,000	406	14.4	-	<del>                                     </del>			<b> </b>			-	<del>-</del> -			<del>                                     </del>			-   -		-			<u> </u>	25.3	-			-	†	<del> </del>
Chromium	100				00 200	200	2,000	303	19.8				1 - 1	-		<u> </u>	-		-				- 1	-   -	-	-	-		-	31.6	J-					.;
Lead	200	200	60		00 600	600	6,000	2,490	234	-	1 - 1 -	-	1 - 1	-		-	-		-	T - T -	T - T -		- 1	-   -	-	-	-	-   -		1620	-		-   -		T	-
Nickel	600	600	1,0	0 1,	000 1,000	1,000	10,000	902	44.3				<u> </u>	-						- [ -	<u> </u>		i	- [ -	-		- 1	- [ -		51.6	- 1		]			
Selenium	400	400			00 700	700	7,000	2.05	0.459	-	-   -	-	[[			-	-					· [	- [	- [ -	-	-	-		-	1.98	- [			-	ļ	ļ
Silver	100	100			00 200	200	2,000	26.9	1.25	-			<u> </u>	-			-		-	<u> </u>		-		-   -	-			-		0.992	-				.ļ	ļ <u>-</u>
Vanadium	400	400			10 50	50	7,000	526	28.8	<u> </u>	<u> </u>			ļ <u>-</u>			<u> </u>									ļ <u>-</u> ļ			.ļ	28.2			<u> </u>	<u> </u>	<u> </u>	. j
Zinc	1,000	1,000	3,0	u 3.	5,000	5,000	10,000	13,800	854	-		-	1 - 1	-	!	-	-	-   -		-   -	- ! -		- 1	- ! -	-	- 1		-   -		1920	- !	-	!	-	.L	ļ <u>-</u>
Mercury	20	20			30	30	300	15.8	0.658					T			· <b>-</b>	1			·	·····		······			T			15.8					1	

### . .

mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

\* = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.
< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

							1	S-42			S-43	S-4	2	S-44		S-44	S-45		S-45		S-46		S-46	e.	47		S-47	S-48	2
		MCP Method 1/3	Soil Standar	ds		Maximum Detected	Exposure Point	7/29/2014			29/2014	7/29/2		7/29/2014		7/29/2014	7/29/2014		7/29/2014		7/29/2014		7/29/2014		2014		7/29/2014	7/30/20	
Analytes	S-1 & S-1 &	S-2 & S-2	& S-3 &	S-3 &		Concentration	Concentrations (mg/Kg)	6-7			3-4	6-'	7	3-4		6-7	3-4		6-7		3-4		6-7		4		6-7	6-7	
	GW-2 GW-3	GW-2 GW	-3 GW-2	GW-3	JOL	(mg/Kg)	(5,5)	Result Qual. 1	/2 RL	Result	Qual. 1/2 RL	Result Qu	al. 1/2 RL	Result Qual.	1/2 RL Result	Qual.	1/2 RL Result Qual. 1/2 RL	Result	Qual.	1/2 RL Res	sult Qual. 1/2 RL	Result	Qual. 1/2 RL	. Result Qu	al. 1/2 RL	Result	Qual. 1/2	RL Result Qual	l. 1/2 RL
Volatile Organic Compounds  1,2,4-Trichlorobenzene	6 700	6 3,0	00 6	5,000	10,000	2.45	0.210	!!!			- I		i	1 1		1 1	1 1		1 1		<u> </u>		I - I -	-	· i		<u> </u>	1	1
1,2,4-11ichlorobenzene	100 300	100 30				2.40	0.210											-					<del>                                     </del>						-
1,3-Dichlorobenzene	100 100	200 50				15.8	1.32		-				<u> </u>			T-T			† - †		-   -		<del>                                     </del>	- 1					
1,4-Dichlorobenzene	1 80	1 40	0 1	2,000	10,000	24.2	2.02		-	- İ			l -					-	l - l							-	-		<u> </u>
2-Butanone (MEK)	50 400	50 40				0.0403	0.0193	-   -											<u> </u>				-   -	- [ -					
Acetone	50 400	50 40		400	10,000	0.167	0.0566 0.0473			ļ									. <b> </b>  .		-   -   -		<u> </u>						
Benzene** Carbon Disulfide	40 40 NA NA	200 20 NA NA		1,000 NA	10,000 NA	0.526 0.0241	0.0473																<del> </del>						
Chlorobenzene	3 100	3 10		100	10,000	105	8.76	<del></del>	-				<u> </u>					-	†			-	<del> </del>			-			
cis-1,2-Dichloroethylene	0.1 100	0.1 50				0.000817	0.000817		-	- 1			-			-		-	1 - 1			-	†			-	-   -		-
Ethylbenzene**	500 500	1,000 1,0	00 1,000	3,000	10,000	0.0281	0.00376	- <u> </u> -		- 1			<u> </u>			- 1		-	] - ]				- [ -			-			-
m+p Xylene**	100 500					0.00581	0.00321	_						-   -							-   -   -		<u> </u>						
Methyl tert-Butyl Ether (MTBE)**	100 100	100 50 20 1.0			5,000	0.00268 1.16	0.00157 0.228														-   -   -		<u> </u>						
Naphthalene**	20 500 100 500	20 1,00 100 1,00		3,000 3,000		7.16 0.00244	0.228												. <del> </del>  -			<u> </u>	<del></del>		-				
o-Xylene** p-lsopropyltoluene (p-Cymene)	NA NA	NA NA		3,000 NA	10,000 NA	0.00244	0.00159	+ = + = + -	-			+	<u> </u>	+					<del>                                     </del>			-	<del>                                     </del>						-
Tetrachloroethylene	10 30	10 20				0.0266	0.00512	-   -	-	t			<u> </u>			T - T		-	1 - t		-   -		<del>                                     </del>	-   -			-		-
Toluene**	500 500	1,000 1,0	00 2,000	3,000	10,000	0.0306	0.00514	l - l - l	-	- 1			1 -					-	<u> </u>		- Î - Î		<u> </u>	- 1	- 1				-
Trichloroethylene	0.3 30	0.3 60	0.3	60	600	0.00206	0.00149			- [			-						-					- j			-   -		-
Volatile Petroleum Hydrocarbons (mg/k C5-C8 Aliphatics (adjusted)	g) 100 100	500 50	0 500	500	5.000	2.27	1.09	_   _								, ,							T _ T _	+ -			_		
C9-C12 Aliphatics (adjusted)	1,000 1,000					0.733	0.270												<del>                                     </del>			-							
C9-C10 Aromatics	100 100	500 50				33.1	6.96											-				-		-	-		-		
Extractable Petroleum Hydrocarbons (n					.,,					<u> </u>	<u>i</u>	·	<u> </u>	· · ·					<u> </u>					•	·		<u>:</u>	·	•
C9-C18 Aliphatics	1,000 1,000			5,000		2,390	265	<u> </u>	-	<u>_</u>	- [ -					<u> </u>			<u> </u>				<u> </u>						
C19-C36 Aliphatics	3,000 3,000					3,230	366												ļļ.				ļ <u> </u>						
C11-C22 Aromatics (Adjusted)	1,000 1,000			5,000		1,150	186							-   -					<u> </u>		-   -   -	-	<u> </u>	-					
2-Methylnaphthalene	80 300 1,000 1,000	80 50 3,000 3,0		500 5,000		4.50 3.86	1.67 1.54												<del>  -</del>				<del>                                     </del>		-				
Acenaphthene Acenaphthylene	600 10	600 10				3.90	1.56	<del>                                     </del>										-	<del>                                     </del>			-	<del>                                     </del>	-	-		-		
Anthracene	1,000 1,000	3,000 3,0				7.75	2.75	-   -	-	- 1			-	-   -							-   -   -	-	T - T -	- 1			-   -	-   -	-
Benzo(a)anthracene	7 7	40 40	300	300	3,000	7.27	2.68	- 1 - 1	-	- ]			Î -	-									T - 1 -						
Benzo(a)pyrene	2 2	7 7	30	30		5.81	2.16	<mark></mark>	-	- [				-   -				-	<u> </u>							-			
Benzo(b)fluoranthene	7 7 1.000 1.000	40 40			3,000	6.40	2.33				-   -		<u> </u>	-   -				-	<u> </u>		-   -   -	-	<del>  -   -</del>	-   -					
Benzo(g,h,i)perylene Benzo(k)fluoranthene	1,000 1,000 70 70	3,000 3,00 400 40				2.38 4.12	1.05 1.63											-	╫╌┼				<del>                                     </del>						
Chrysene	70 70	400 40				10.3	3.69		-				<u> </u>					-	<del> </del> -			-	<del>                                     </del>			-			
Dibenz(a,h)anthracene	0.7 0.7	4 4		30	300	2.18	0.983	_   _		- 1			<u> </u>					-	1 - 1					- 1		-			-
Fluoranthene	1,000 1,000	3,000 3,0				18.7	6.5	l - l - l	-	- [							-   -   -   -		] ]		-   -   -			- )					
Fluorene	1,000 1,000	3,000 3,0			10,000	7.08	2.62		-																				-
Indeno(1,2,3-cd)pyrene	7 7	40 40			3,000	2.70	1.16	<del>  -   -  </del>					<u> </u>	-   -							-   -   -		<del>  </del>	<u></u>				-   -	
Phenanthrene Pyrene	500 500 1,000 1,000	1,000 1,00 3,000 3,00		3,000 5,000		16.2 12.6	5.74 4.50		-				<del></del>			╫╌┼			<del>                                     </del>				<del>                                     </del>						
Polychlorinated Biphenyls (mg/kg)	1,000	0,000 0,00	0,000	5,000	.0,000	.2.0	2.00						-												i				
Aroclor-1242	1 1	4 4	4	4	100	36.2	0.521			0.0394	- 0.0197	0.0167 J		8.83	2.51		< 0.0527 0.02635	0.157	<u> </u>		361 - 0.01805	< 0.038	0.019		0.01815	< 0.04		02 < 0.0491	0.02455
Aroclor-1248	1 1	4 4		4	100	0.0914	0.0238		.0199 <		- 0.0197	< 0.0406 -	0.0203	< 0.76	NC < 0.309		NC < 0.0527 0.02635	< 0.0405			1361 - 0.01805	< 0.038			0.01815	< 0.04		02 < 0.0491	0.02455
Aroclor-1254	1 1	4 4		4	100	33.4	0.448			0.0898		0.11 J			0.38 < 0.309		0.1545 < 0.0527 0.02635	< 0.0405			361 0.01805				0.01815	< 0.04		0.0137 J	
Aroclor-1260 Total PCBs	1 1	4 4		4	100 100	195 195	2.14 4.01	<mark></mark>		0.0394 0.0898	0.0197 	< 0.0406 0.1267	0.0203	4.67 13.5	- 0.567 - 3.077		< 0.0527 0.02635 ND	0.157 0.314	╀	0.00	982 J 982	0.0424 0.0424		< 0.0363 -	- 0.01815	0.0186 0.0186			
Metals (mg/kg)	' '	, ,	4	-	100	193	4.07	0.1703   -	_	0.0030		0.1207		13.3	- 3.011		- 145	0.514		0.00	902   -   -	0.0424	<u> </u>	ND :		0.0100		0.0137	
Antimony	20 20	30 30	30	30	300	18.8	2.10	-   -	-	[	- [ -	-   -	-	15.2 J-		-	-   -   -   -		-	< 0.	536 UJ 0.268	0.893	J	-   -	-		-   -	-   -	-
Arsenic	20 20	20 20			500	65.3	5.48	<u> </u>	-	- 1			<u> </u>	10.3					<u> </u>	4.		3.8	J- i	- 1	- 1	-			-
Barium	1,000 1,000	3,000 3,0				1,390	64.9	- I - I		- [			<u> </u>	302		_		-			. <b>4</b> J	24.4	J			-	-		-
Beryllium	90 90 70 70	200 20				2.48	0.494	<del>                                     </del>		<u></u>				0.619					. <b>ļ</b>		11 J	0.427	J		-			-   -   -	
Cadmium Chromium	70 70 100 100	60 60 200 20		60 200		406 303	14.4 19.8						<u> </u>	8.22 77.5		+=+			<del>                                     </del>	0.5	58 )5 J	0.724 6.57	J	<u> </u>					
Lead	200 200					2,490	234	<mark></mark>						2080 -					- I		.4 J	58.7							
Nickel	600 600	1,000 1,0				902	44.3			- 1			<u> </u>	171 -		I			tt	7.0		10.7	<del>                                     </del>			-			-
Selenium	400 400	700 70	0 700	700	7,000	2.05	0.459	<u> </u>					<u> </u>	< 0.581	0.2905			-	<u>                                     </u>	0.5	86 J	< 0.573	UJ 0.2865		-				-
Silver	100 100	200 20			2,000	26.9	1.25			Ţ			<u> </u>	2.48					.		536 - 0.268	< 0.573	- 0.2865	i	-				
Vanadium	400 400	40 40		50		526	28.8							526		_  .			. <b>ļ</b>		.6 J	6.78	J		-				
Zinc	1,000 1,000			5,000		13,800	854	<del>  -   -   -</del>			-   -			1710 J-					. <b> </b>		3	167	<del>  -   -</del>	_   -	-	-		-   -   -	
Mercury	20 20	30 30	30	30	300	15.8	0.658	1 - 1 - 1	-	- !	- 1 -	-		3.28		<u>i - i</u>	-   -   -	-	<u>1 - i</u>	0.1	03	0.0483	- -		· i	-	-   -	-   -   -	i -

### . .

mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.
NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

\* = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.

< = Constituent is not detected; value presented is the laboratory reporting limit (RL).</p>

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to mores failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

							Marrianna			S-49		S-49	S-5	n		S-50			S-51		S-51		S-52		S.	52		S-53		S-53		S-54		S-54	
		MC	CP Method 1/3 So	l Standards			Maximum Detected	Exposure Point		/30/2014		30/2014	7/30/2			7/30/2014			30/2014		/30/2014	7	//30/2014			2014		7/29/2014	4	7/29/20		7/29/201	4	7/29/201	
Analytes	S-1 & S	-1 &	S-2 & S-2 &	S-3 & S-	3 &	UCL	Concentration	Concentrations (mg/Kg)		3-4		6-7	3-4			6-7			3-4		6-7		3-4		6	-7		3-4		6-7		3-4		6-7	
	GW-2 G	W-3	GW-2 GW-3	GW-2 G	W-3	UCL	(mg/Kg)	(9/1.19/	Result	Qual. 1/2 F	RL Result	Qual. 1/2 RL	Result Qua	l. 1/2 RL	Result	Qual.	1/2 RL	Result	Qual. 1/2 RL	Result	Qual. 1/2 RL	Result	Qual. 1	/2 RL F	esult Qu	al. 1/2 RL	Result	Qual.	1/2 RL	Result Qual.	1/2 RL	Result Qual.	1/2 RL	Result Qual.	1/2 RL
Volatile Organic Compounds		700	0 000	0 5	000 4	10.000	0.45	0.040			-	1							1							-		-		i i	1	i i	1		
1,2,4-Trichlorobenzene 1,2-Dichlorobenzene			6 3,000 100 300			10,000 10,000	2.45 2.10	0.210 0.181																											
1,3-Dichlorobenzene			200 500			5,000	15.8	1.32	- <del> </del>					- <del> </del>		1													<b> </b>		· <del> </del> -		<del> </del>		
1,4-Dichlorobenzene			1 400			10,000	24.2	2.02		-   -				-		1	-								- İ	- 1			-				<del>-</del> -		-
2-Butanone (MEK)			50 400			10,000	0.0403	0.0193	- 1	- 1 -	- 1			-		1 - 1	-						-		- 1	-								-   -	
Acetone	50 4	100	50 400			10,000	0.167	0.0566		-   -	- [		- ] -			]	-						[		- [	- ]	-							-   -	
Benzene**			200 200			10,000	0.526	0.0473		-   -	- [														<u> </u>								<u> </u>	-   -	<u> </u>
Carbon Disulfide			NA NA			NA	0.0241	0.00583																									ļ		<u> </u>
Chlorobenzene		100 100	3 100 0.1 500			10,000 5,000	105 0.000817	8.76 0.000817									-									-					<del> </del>		<u> </u>		<del>  -</del>
cis-1,2-Dichloroethylene Ethylbenzene**			1,000 1,000			10,000	0.000817	0.00376					<del>                                     </del>			1													<u> </u>		·		<u> </u>		<del></del>
m+p Xylene**			100 1,000			10,000	0.00581	0.00370			-				-																		-		†
Methyl tert-Butyl Ether (MTBE)**			100 500			5,000	0.00268	0.00157	- 1		- 1			-		-	-	]					-			-			-	-   -			-		
Naphthalene**	20	500	20 1,000	20 3,	000 1	10,000	1.16	0.228		- 1 -	-			_	-		-						- 1	-	- 1		-	Ĭ -	-					-   -	-
o-Xylene**			100 1,000			10,000	0.00244	0.00159	-	-   -	-			-		- 1	-	- [					-	-	-	- [ -		-	-		-		-	-   -	-
p-Isopropyltoluene (p-Cymene)	<b>+</b>		NA NA			NA	0.00369	0.00167			-		<u> </u>		<b></b>	<u> </u>	-	<u></u>		- 1									ļ <u>-</u>		. <b> </b>		<u> </u>		<u> </u>
Tetrachloroethylene		30	10 200			10,000	0.0266	0.00512 0.00514							<b>.</b>		-																-		
Toluene** Trichloroethylene			1,000 1,000 0.3 60			10,000 600	0.0306 0.00206	0.00514		_   _			<del>                                     </del>	<del></del>											<del>-  </del>	- <u>-</u>			<u> </u>		<u> </u>		<del> </del>	-   -	
Volatile Petroleum Hydrocarbons (mg/k		00	0.0 00	0.0	J	300	0.00200	0.00149			- 1		;				-	- 1				-					-			-   -		-   -		-   -	
C5-C8 Aliphatics (adjusted)	r e	100	500 500	500 5	00 5	5,000	2.27	1.09	- 1	-   -	- 1		-   -	-	-	I - I	-	- 1		- 1		- 1	- 1		- 1	-   -	-	1 -	-	-   -	-			-   -	-
C9-C12 Aliphatics (adjusted)	1,000 1	,000	3,000 3,000			20,000	0.733	0.270		_   _	-					]	-						- 1		- 1			<u> </u>	-						
C9-C10 Aromatics	100	100	500 500	500 5	00 5	5,000	33.1	6.96						-			-								- [										
Extractable Petroleum Hydrocarbons (r													<u> </u>																	ļ.		<u>,</u>			
C9-C18 Aliphatics			3,000 3,000	5,000 5,		20,000	2,390	265								<b> </b>							<u> </u>						<u> </u>	-   -	.ļ <u>-</u>		ļ <u>-</u>		ļ
C19-C36 Aliphatics C11-C22 Aromatics (Adjusted)			5,000 5,000 3,000 3,000			20,000	3,230 1,150	366 186																	<u></u>	-			-		·			-   -	- <del></del>
2-Methylnaphthalene			80 500			5.000	4.50	1.67						+															<u> </u>						<u> </u>
Acenaphthene			3,000 3,000			10,000	3.86	1.54	<del>                                     </del>					+	-	1													<del>                                     </del>		† <u>-</u>		<u> </u>		†
Acenaphthylene	<b> </b>		600 10			10,000	3.90	1.56	- 1					-		- 1	-						-		- 1					-   -				- 1 -	
Anthracene	1,000 1	,000	3,000 3,000	5,000 5,		10,000	7.75	2.75		-   -	-			_	-	I - I	-						- [	-	- [	- [ -	-	i -	-		-			-   -	-
Benzo(a)anthracene	7	7	40 40			3,000	7.27	2.68		-   -	- [														<u> </u>								<u> </u>	-   -	
Benzo(a)pyrene	ļ	2	7 7			300	5.81	2.16	<u></u>							<u> </u>	-			🗼					<u> </u>	- į			ļ		<u> </u>		Ļ		<u> </u>
Benzo(b)fluoranthene	<b></b>	7	40 40 3,000 3,000			3,000 10,000	6.40 2.38	2.33 1.05							-										.= <b>ļ</b> :				-		ļ <u>-</u>		ļ		
Benzo(g,h,i)perylene Benzo(k)fluoranthene	<b>+</b>		400 400			10,000	2.38 4.12	1.05								<del> </del>															<u></u>		<u> </u>		
Chrysene			400 400	3,000 3,		10.000	10.3	3.69			-				-																		-		
Dibenz(a,h)anthracene	<b></b>		4 4			300	2.18	0.983	- 1	- 1 -	- 1			<u> </u>		11	-				-   -		-		- 1	-   -		<u> </u>	-		-			-   -	-
Fluoranthene	1,000 1	,000	3,000 3,000	5,000 5,	000 1	10,000	18.7	6.5		- 1 -	-			-		- 1	-	-					- 1		- 1		-	i -	-		-		-		T -
Fluorene			3,000 3,000			10,000	7.08	2.62		-   -	-			-	-	- 1	-						-	-	- [	-   -	-	-	-		-		-		-
Indeno(1,2,3-cd)pyrene			40 40			3,000	2.70	1.16																											
Phenanthrene			1,000 1,000 3,000 3,000			10,000 10,000	16.2 12.6	5.74 4.50		-   -																			-				ļ		
Pyrene Polychlorinated Biphenyls (mg/kg)	1,000 1	,000	3,000 3,000	5,000 5,	000 11	10,000	12.0	4.50	- 1	-   -							-	<u>i</u>			-   -					<u> </u>	-		<u> </u>				-	-   -	
Aroclor-1242	1	1	4 4	4	4	100	36.2	0.521	0.02	-   -	< 0.0369	- 0.01845	0.0324 J	-	< 0.0428	I I	0.0214	< 0.0396	- 0.0198	< 0.0421	- 0.02105	5 0.1	- 1	<(	.0427	- 0.02135	< 0.0776	UJ	0.0388	< 0.0369	0.01845	< 0.0377	0.01885	< 0.0377	0.01885
Aroclor-1248	1	1	4 4	4		100	0.0914	0.0238	< 0.038	- 0.01		- 0.01845	< 0.0346	0.0173		1 - 1		< 0.0396	- 0.0198	< 0.0421	- 0.02105		- 0		.0427	- 0.02135			4	< 0.0369	0.01845	< 0.0377	. 4	< 0.0377	0.01885
Aroclor-1254	1	1	4 4			100	33.4	0.448	< 0.038	- 0.01	9 0.0965		0.254	<u> </u>	0.0334	] - ]	-	< 0.0396	- 0.0198	< 0.0421	- 0.02105		J		.0427	- 0.02135	< 0.0776	UJ	0.0388	0.0713	-	< 0.0377		< 0.0377	0.01885
Aroclor-1260			4 4			100	195	2.14				- 0.01845	< 0.0346		< 0.0428			< 0.0396	- 0.0198	< 0.0421		5 < 0.0388	0		0204			UJ			0.01845	0.0242		<b>0.0287</b> J	
Total PCBs	1	1	4 4	4	4	100	195	4.01	0.134	-   -	0.0965		0.2864		0.0334	-	-	ND	-   -	ND	-   -	0.467	-	0	0204	-   -	ND	<u> </u>		0.0713	<u> </u>	0.0242	-	0.0287	-
Metals (mg/kg)	20	00	30 30	30 3	20	300	18.8	2.10	3.36		-	1							1	. 0.500	UJ 0,2995					-		-		i i	1	i i	1		
Antimony	<b>↓</b>		20 20			500	18.8 65.3	5.48	7.86											< 0.599 <b>5.14</b>						- <u> </u>			<u> </u>				-		-
Arsenic Barium						10,000	1,390	64.9	7.00				<del>                                     </del>	<del></del>	+	1				130								- <del> </del>	<del>                                     </del>		† <u>-</u>		† <u>-</u>	_   _	
Beryllium	<b> </b>					2,000	2.48	0.494	0.306	_   _	- 1		1 - 1 -	-		1	-			2.48		-			-	-   -				- † -			†	-   -	-
Cadmium	70	70	60 60	60 (	60 1	1,000	406	14.4	3.39	- 1 -	- 1			-		<u> </u>	-			0.494		-			- 1	- 1								- 1 -	-
Chromium	100	100	200 200		00 2	2,000	303	19.8	30.9	- J -	- 1		] - ] -	Ţ		]]	-			11.9		-	[	-	- I	- J		Ţ -		- <u> </u>			<u> </u>	- 1 -	
Lead			600 600			6,000	2,490	234	247	_   _							- ]	[		709		-		-	- [	-   -				- [ -	-		ļ <u>-</u>		
Nickel			1,000 1,000			10,000	902	44.3	46				ļ <u></u>		ļ	4				9.46									ļ <u>-</u>		.ļ <u>-</u>		ļ		
Selenium			700 700			7,000	2.05	0.459	2.05			-   -	<del>  -   -</del>		ļ <u>-</u>	ļl	-			< 0.599 0.358	- 0.2995				-	-			-		-		-		
Silver Vanadium			200 200 40 40			2,000 7,000	26.9 526	1.25 28.8	< 0.603 <b>26.7</b>	- 0.30 			+	<del>  -</del>		1				0.358 16.9								<u> </u>			-				-
Zinc						10,000	13,800	20.0 854	6570				<del>                                     </del>		+	1				442					-	-   -		<del></del>	<del></del>				<del></del>		
Mercury			30 30			300	15.8	0.658	0.0675	-   -	-			<u> </u>		11	-			0.326		-			- 1									- † -	-
· · · · · · · · · · · · · · · · · · ·	•			•						•				•	+				•		•	-, -				•		•							

#### . . .

mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

\* = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.
< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

								Maximum			S-55			S-55		S-56		S-	56		S-57	S-5	57		S-58			S-58			S-59		S-60		S-6			S-61
Analytes			MCP M	ethod 1/3 So	oil Standard	ds		Detected	Exposure Point Concentrations	!	7/30/2014			30/2014		7/30/2014			2014		29/2014	7/29/2			7/29/2014			29/2014			7/30/2014		7/30/2014		7/30/2			30/2014
Analytes		S-1 &		% S-2 &	S-3 &	S-3 &		Concentration	m (mg/Kg)		3-4			6-7		3-4		6	, 		3-4	6-7			3-4*			6-7			6-7		3-4		6-7			3-4
Volatile Organic Compounds	GW-2	GW-3	GW-	2 GW-3	GW-2	GW-3		(mg/Kg)		Result	Qual. 1	1/2 RL	Result	Qual. 1/2 RL	Result	Qual.	1/2 RL	Result Qu	al.   1/2 R	RL Result	Qual. 1/2	RL Result Qua	al. į 1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual. 1/2 RL	Result	Qual.	1/2 RL	Result Qua	l. 1/2 RL	Result	Qual. 1/2 RL
1,2,4-Trichlorobenzene	6	700	6	3,000	6	5,000	10,000	2.45	0.210		1 - 1		[	-   -		1 _ 1		-	.	_	- 1 -		1 _				[	_ [		1	_   _		1 - 1	_	_   _	1 _		_   _
1,2-Dichlorobenzene	100	300				300	10.000		0.181		<del> </del>					++							<del>-  </del>		_								<del> </del>	-				
1,3-Dichlorobenzene	100	100				500	5,000	15.8	1.32	-	1 - 1		-	- 1 -		1 - 1		- 1 -		- 1			<u> </u>		- 1			-			- i -		1 - 1	-	-   -	-		-   -
1,4-Dichlorobenzene	1	80	1	400	1	2,000	10,000	24.2	2.02		I - I		- [	- I -		[ - [		- [ -	-	- 1			T -		- I		[	- [			-   -		I - I	-		-	[	
2-Butanone (MEK)	50	400				400			0.0193	-	<u> </u>			<u></u>	-	<u> </u>		- [ -		-				-	-		- [				- [ -		<u> </u>	-				-   -
Acetone	50	400				400			0.0566		J									-													.ļļ.					
Benzene**	40	40				1,000			0.0473		<u> </u>	-			-	<u> </u>			-						-								<u> </u>	-				
Carbon Disulfide	NA °	NA				NA	NA 40.000	0.0241	0.00583	<u></u>						.									<b></b>													
Chlorobenzene	3 0.1	100	0.1	100 500	0.1	100 500	10,000 5,000	105 0.000817	8.76 0.000817		+				-													-										
cis-1,2-Dichloroethylene Ethylbenzene**	500	100 500						0.000011	0.000817							╀		ļ <u>.</u>							<u>-</u>		<u>-</u>						- <del> </del> -					
m+p Xylene**	100	500				3,000			0.00370		+					╫╌┼																	+=+				·····	
Methyl tert-Butyl Ether (MTBE)**	100	100				500	5.000	0.00268	0.00157		-				-	1 - 1				-					-								- T	-				
Naphthalene**	20	500	20	1,000	20	3,000	10,000	1.16	0.228	-	T		-			- 1		1 -		-			-		-			-					T - T	-		-		
o-Xylene**	100	500				3,000			0.00159		1 - 1		- 1	-   -		<u> </u>			- 1	- 1							- 1	-			<u> </u>		]1	-	-   -	-		
p-Isopropyltoluene (p-Cymene)	NA	NA	NA	NA	NA	NA	NA	0.00369	0.00167	-	<u> </u>	- ]		<u> - I </u>		<u> </u>			. ]					-				-					<u> </u>	-	-   -			
Tetrachloroethylene	10	30 500	10			1,000		0.0266	0.00512			-	Ţ		-	<u> </u>												-				ļ	<u> </u>	- ]				
Toluene**	500								0.00514		<u> </u>	-				<u> </u>			-								<u>i</u>					-	<u> </u>	-	_			
Trichloroethylene	0.3	30	0.3	60	0.3	60	600	0.00206	0.00149		<u> </u>		- 1	-   -	-	<u>i - 1</u>		-   -	-   -	- 1	-   -	-   -	<u> </u>					-					1 - 1	-	-   -			-   -
Volatile Petroleum Hydrocarbons (mg/k C5-C8 Aliphatics (adjusted)	<b>kg)</b>	100	500	500	500	500	5.000	2.27	1.00		1		- 1			1				-							-	_	_				1 1					_   _
C9-C12 Aliphatics (adjusted)	1,000	100 1,000							1.09 0.270		+					┿┋┿		<del>                                     </del>															++					
C9-C10 Aromatics	100	100				500			6.96		<del>                                     </del>					++																-	<del>                                     </del>					
Extractable Petroleum Hydrocarbons (n		100	000				0,000	00.7	0.00					<u>!</u>													<u>_</u>				!							
C9-C18 Aliphatics	1,000	1,000	3,00	0 3,000	5,000	5,000	20,000	2,390	265							- 1				-											-   -			-				
C19-C36 Aliphatics	3,000	3,000	5,00	5,000	5,000	5,000	20,000	3,230	366	-			- [		-	T - T				-			-		-			-	-			-	- T	-		-		
C11-C22 Aromatics (Adjusted)	1,000	1,000	3,00	0 3,000	5,000	5,000	10,000	1,150	186				-	I		[ - [		- I -		- 1			-		-			-			- <u>I</u> -		- 1	-		-		
2-Methylnaphthalene	80	300				500	5,000	4.50	1.67		<u> </u>	-				<u> </u>		- [ -	-	- 1					-		[		-				<u> </u>	-				-   -
Acenaphthene	1,000								1.54		<u> </u>					.ļļ		ļ <u></u>	-								<u>į</u>						.ļļ.	-				
Acenaphthylene	600	10				10	10,000		1.56		<u> </u>					.		- 1 -									<del>-</del>						<u> </u>		-   -			
Anthracene	1,000	1,000	3,00 40			5,000 300	10,000 3.000	7.75 7.27	2.75 2.68																								<del> </del> -					
Benzo(a)anthracene Benzo(a)pyrene	2	2	40	40 7	300	300	300	5.81	2.16		+					╂											-						+=+					
Benzo(b)fluoranthene	7	7	40			300	3,000	6.40	2.33	<del></del>	- <del> </del>																											
Benzo(g,h,i)perylene	1,000					5,000			1.05		† - † -			t		1 - 1				-			- <del> </del> -		-								1 - 1	-		<del></del>		
Benzo(k)fluoranthene	70	70			3,000	3,000			1.63		1 1					1 - 1				-			<u> </u>		- 1			-					1-1	-		-		
Chrysene	70	70		400	3,000	3,000			3.69		1 - 1		- 1	- 1 -		T - T				-			-		-			-					- 1	-		-		
Dibenz(a,h)anthracene	0.7	0.7				30	300	2.18	0.983	-	] - [		-		-	[ - [			- [						- [			-					<u> </u>	-		-		
Fluoranthene	1,000					5,000			6.5		<u> </u>					<u> </u>				-					-								<u> </u>	-				
Fluorene	1,000					5,000	10,000		2.62		-	-	-		-	-		-   -	-   -	-	-   -		_   -	-	-		-	-	-			-	-	-				-   -
Indeno(1,2,3-cd)pyrene	7	7	40		300	300	3,000	2.70	1.16		<u> </u>					<u> </u>											<u>-</u>						<u> </u>					ii
Phenanthrene Pyrene	500 1,000	500 1,000							5.74 4.50		<del>  </del>				-	- <del> </del> -												-				<del> </del>					·····	
Polychlorinated Biphenyls (mg/kg)	1,000	1,000	3,00	3,000	3,000	5,000	10,000	12.0	4.00	-				-   -	_				-	- 1	- 1 -		·   -			-						_		-				-
Aroclor-1242	1	1	4	4	4	4	100	36.2	0.521	36.2	1 - 1		0.106	-   -	< 0.201	-	0.1005	< 0.055	0.027	75 < 0.0344	0.01	72 < 0.0368	0.0184	< 0.0358	- 1	0.0179	< 0.0385	- 1	0.01925	0.0522	J+	< 0.0404	-	0.0202	< 0.0506	0.0253	< 0.0374	- 0.0187
Aroclor-1248	1	1	4	4	4	4	100		0.0238	< 3.51			< 0.0504	0.0252			NC		- 0.027		- 0.01		0.0184			0.0179	< 0.0385			< 0.0391	- 0.01955	< 0.0404			< 0.0506	0.0253		- 0.0187
Aroclor-1254	1	1	4	4	4	4	100	33.4	0.448	< 3.51		1.755	< 0.0504	0.0252	< 0.201	- 1	0.1005	< 0.055	- 0.027	75 < 0.0344	0.01	72 < 0.0368	0.0184	< 0.0358		0.0179	< 0.0385	-	0.01925	0.356	J+ -	< 0.0404	- 1	0.0202	0.0523	-	0.0197	J
Aroclor-1260	1	1	4		4	4	100	195	2.14	1.19	J		0.0347	- [ -	< 0.201	l - I	0.1005	< 0.055	- 0.027	75 <b>0.0187</b>		0.00614		< 0.0358	-	0.0179	0.006	-		< 0.0391	0.01955	0.126	J+	-	< 0.0506	0.0253	< 0.0374	0.0187
Total PCBs	1	1	4	4	4	4	100	195	4.01	37.39		-	0.1407		ND	-		ND -	-	0.0187		0.00614	-	ND	-		0.006	-	-	0.4082		0.126	-	-	0.0523	-	0.0197	
Metals (mg/kg)														<u> </u>					<u> </u>		<u> </u>		<u> </u>				<u> </u>				<u> </u>				<u> </u>	<u> </u>		•
Antimony	20	20				30	300	18.8	2.10			-	<u> </u>		18.8	<u> </u>			-				_		-									-				-   -
Arsenic	20	20				50	500	65.3	5.48		<del>  </del>	-			24.4	<u> </u>		-   -		- 1							<u>-</u>						<u> </u>	-				
Barium Beryllium	1,000 90	1,000 90				5,000 200			64.9 0.494		+				578 0.164	++		ļ <u> </u>									<u>-</u>	-					╫╌┼					
Cadmium	70	70				60	1,000	406	14.4		<u> </u>				406																							
Chromium	100	100				200	2,000	303	19.8		†			-   -	303	++		<u> </u>			_   _		-	-	-			-			-   -	-	T-+	-		-		
Lead	200	200				600	6,000	2,490	234		† i				1630	T									- 1			-					1	-	-   -	-		
Nickel	600	600				1,000		902	44.3					-   -	902	- 1				- 1			<u> </u>		-		- 1	-			-   -		- 1	-	-   -	-		
Selenium	400	400				700	7,000	2.05	0.459		1 1		- 1		0.985	1 - 1		1		- 1			-		- 1			-					1 - 1	-	-   -	-		
Silver	100	100	200	200	200	200	2,000	26.9	1.25	-	I - L	- 1	j	- [ -	26.9	I - I		<u>_</u>	. ]	- 1					İ		- İ	-	-	-	- [ -	-	J - İ	-	- [ -	_		
Vanadium	400	400				50	7,000		28.8	-	<u> </u>	- I		[	50.4	<u> </u>		- <u> </u>	-	- 1	- [ -		<u> </u>				į	-	- "				<u> </u>	- ]		-		
Zinc	1,000					5,000			854		<u> </u>				13800	<u> </u>		ļ <u>-</u>	-								<u>.</u>							-				
Mercury	20	20	30	30	30	30	300	15.8	0.658	-	-	-	- 1	-   -	0.104	<u> </u>		-   -	-   -	-	-   -		-	-	<u> </u>		- 1	-	-	-	-   -	-	1 - 1	-	-   -	-		

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Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected

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Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

							Maximum		9	S-61		S-62		S-62			S-63			S-63	S-6	64		S-64		9	6-66		S-66		S-I	37	S-67		S-68	8
Analysis		MC	CP Method 1/3 So	il Standards			Detected	Exposure Point		30/2014		7/29/2014		7/29/2014		7	7/29/2014			29/2014	7/30/2			30/2014			9/2014		7/29/20	d .	7/29/		7/29/20	4	7/30/20	
Analytes	S-1 & S-	1&	S-2 & S-2 &	S-3 &	S-3 &	UCL	Concentration	Concentrations (mg/Kg)		6-7		3-4		6-7			3-4			6-7	3-4			6-7			3-4		6-7		3-		6-7		3-4	,
	GW-2 GV	W-3 (	GW-2 GW-3	GW-2	GW-3		(mg/Kg)	( 0 0)	Result C	Qual. 1/2 F	RL Result	Qual. 1/2 R	RL Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual. 1/2 RL	Result Qua	al. 1/2 RL	Result	Qual. 1	/2 RL F	Result C	ual. 1/2 R	L Re:	sult Qua	l. 1/2 RL	Result Qu	al. 1/2 RL	Result Qual.	1/2 RL	Result Qual	l. 1/2 RL
Volatile Organic Compounds  1,2,4-Trichlorobenzene	6 7	00	6 3,000	6	5,000	10,000	2.45	0.210		· i				1 1		i	- 1		- 1	1			1				- 1		- 1	1	!		:	1		i
1,2,4-11iciliorobenzene			100 300		300	10,000	2.43	0.181						++																						
1,3-Dichlorobenzene			200 500		500	5,000	15.8	1.32	-			<del>† - † -</del>		TT	-			-					-	<del>-</del>			- 1 -		- 1		- 1 -			†		
1,4-Dichlorobenzene			1 400		2,000	10,000	24.2	2.02		-   -			-	i - i	-		1	-						-		- 1	-   -	-		-					-   -	-
2-Butanone (MEK)			50 400		400	10,000	0.0403	0.0193		- <u> </u> -				<u> </u>	-		- <u>]</u>	-		[		- [		<u>[</u>		- <u>[</u>	<u>[</u>	-	- j	-					- [ -	
Acetone			50 400		400	10,000	0.167	0.0566	-				-	<u> </u>			<u>-</u>										<u> </u>									
Benzene**			200 200		1,000	10,000	0.526	0.0473						<u> </u>								-					-   -				-   -			<u> </u>		
Carbon Disulfide Chlorobenzene		NA 00	NA NA 3 100		NA 100	NA 10,000	0.0241 105	0.00583 8.76						<b></b>																						
cis-1,2-Dichloroethylene			0.1 500		500	5,000	0.000817	0.000817	<del>  </del>			<del>                                     </del>		$+\bar{-}+$									<del>                                     </del>			- +	- + -			<del></del>				+		
Ethylbenzene**			1,000 1,000		3,000	10,000	0.0281	0.00376				T - T -		1-1	-	-		-								-	-   -	-		-	- 1 -					
m+p Xylene**			100 1,000		3,000	10,000	0.00581	0.00321	-	-   -		i	-	1 - 1	-		1	-					[	- 1		- 1		-		-		-			-   -	
Methyl tert-Butyl Ether (MTBE)**			100 500		500	5,000	0.00268	0.00157	-	- [ -				] - [	-		- ]	-				- [		- [		- [	]	-		-					- [ -	
Naphthalene**			20 1,000		3,000	10,000	1.16	0.228		<u> </u>		<u> </u>	-	<u> </u>		j	<u>i</u> .						-	<u></u>			<u>j</u>		-		-   -			.i		
o-Xylene**			100 1,000		3,000	10,000	0.00244	0.00159		-   -		<del>  -   -</del>					-	-				-	-			-	-   -		-   -	-						-
p-Isopropyltoluene (p-Cymene) Tetrachloroethylene			NA NA 10 200		NA 1.000	NA 10.000	0.00369 0.0266	0.00167 0.00512						++													-   -		-   -					-		-
Tetrachloroethylene Toluene**			1,000 1,000		3,000	10,000	0.0266	0.00512				<del>                                     </del>		-									<del>                                     </del>													
Trichloroethylene			0.3 60		60	600	0.00206	0.00149				<del> </del>	-	1 - 1	-		- 1	-	<u>-</u>			<u>L</u>	- I	-		- 1	-   -		-		- 1 -			† - †	-   -	
Volatile Petroleum Hydrocarbons (mg/k												· · · · · ·																								
C5-C8 Aliphatics (adjusted)			500 500		500	5,000	2.27	1.09						<u> </u>		- ]		-						[		- [					-   -			-		
C9-C12 Aliphatics (adjusted)			3,000 3,000			20,000	0.733	0.270		_				<u> </u>	-							-				-	-   -						-   -			
C9-C10 Aromatics		00	500 500	500	500	5,000	33.1	6.96	- 1	-   -				<u>  -  </u>		- 1				-   -			- 1	-		- 1	-   -	-	-   -		-	-	-   -	-	- 1 -	-
Extractable Petroleum Hydrocarbons (m C9-C18 Aliphatics		000 :	3,000 3,000	5,000	5.000	20.000	2,390	265	_	_   _			_	1 . 1	_	_ 1	I	_		_ ! _				_	_	_ [	_   _			I			_ ! _			
C19-C36 Aliphatics			5,000 5,000		5,000	20,000	3,230	366				<del>                                     </del>	-	<b>†</b> - †	-			-									- 1 -							† †	-   -	-
C11-C22 Aromatics (Adjusted)			3,000 3,000		5,000	10,000	1,150	186		- 1 -			-	1 - 1	-	- 1	1	-		-   -			-	-		- 1	-   -			-		-				
2-Methylnaphthalene	80 3	00	80 500	80	500	5,000	4.50	1.67		- 1 -		I	-	1 - 1	-	- 1	]	-						- 1		- 1	- 1 -	-	- ]	-		-				
Acenaphthene			3,000 3,000		5,000	10,000	3.86	1.54		[		<u> </u>		11	-	<u> </u>		-									<u>- l - </u>			<u> </u>	<u> </u>			<u> </u>		
Acenaphthylene			600 10		10	10,000	3.90	1.56		_			-	<del>  -  </del>	-												-   -									-
Anthracene Benzo(a)anthracene	1,000 1,		3,000 3,000 40 40		5,000 300	10,000 3.000	7.75 7.27	2.75 2.68				<u> </u>		<del>                                     </del>																				ļ		
Benzo(a)pyrene	2	2	7 7		300	300	5.81	2.16				<del>                                     </del>		<del>                                     </del>																				<del> </del>		
Benzo(b)fluoranthene			40 40		300	3,000	6.40	2.33				† - † -	-	††-	-			-												-						
Benzo(g,h,i)perylene	1,000 1,	000 3	3,000 3,000		5,000	10,000	2.38	1.05	-	-   -			-	1 - I	-	-	- 1	-						- 1		- İ	-   -	-	-   -	-				-	-   -	-
Benzo(k)fluoranthene	70	70	400 400		3,000	10,000	4.12	1.63	-	-   -			-	] - [	-	-	[	-						- [		- [	- [ -			-		-		-	- ] -	
Chrysene			400 400		3,000	10,000	10.3	3.69	<u> </u>				-	<del>  -  </del>	-												-   -									
Dibenz(a,h)anthracene Fluoranthene			4 4 3,000 3,000		30 5,000	300 10,000	2.18 18.7	0.983 6.5	<u></u>				-	<del> </del> -															<u> </u>							-
Fluorene			3,000 3,000		5,000	10,000	7.08	2.62						╂																						
Indeno(1,2,3-cd)pyrene			40 40		300	3,000	2.70	1.16				<b>+</b> - + -		1	-			-																-		
Phenanthrene	500 5	00	1,000 1,000		3,000	10,000	16.2	5.74		-   -			-	T - T	-		[	-					[	- [		- 1	-   -	-	-	-					-   -	-
Pyrene	1,000 1,	000 3	3,000 3,000	5,000	5,000	10,000	12.6	4.50							-			-										-								
Polychlorinated Biphenyls (mg/kg)																																			1	
Aroclor-1242		1	4 4	4	4	100	36.2	0.521 0.0238	< 0.0398 < 0.0398	- 0.019					0.019	< 0.0339			< 0.0369	- 0.01845 - 0.01845	< 0.0335 < 0.0335	0.01675				0.0349 0.0349	0.0174 0.0174			0.01835 0.01835		0.0181			< 0.0365	0.01825
Aroclor-1248 Aroclor-1254	1	1	4 4	4	4	100 100	0.0914 33.4	0.0238	< 0.0398	- 0.019 - 0.019					0.019	< 0.0339 < 0.0339			< 0.0369 < 0.0369	- 0.01845 - 0.01845	< 0.0335 0.0127 J	0.01675	< 0.0474			.0245	0.0174	5 < 0.0 < 0.0		0.01835		0.0181			< 0.0365 0.0103	0.01825
Aroclor-1260	1	1	4 4		4	100	195	2.14	< 0.0398	- 0.019			< 0.038		0.019				< 0.0369	- 0.01845		0.01675					0.0174	15 < 0.0		0.01835			0.0872			0.01825
Total PCBs	1	1	4 4	4	4	100	195	4.01	ND ND				0.00584		-	ND	1	-	ND				ND			.0245	-   -		D		0.00537	-	0.0872		0.0103	
Metals (mg/kg)									İ	i		<del></del>		· · · ·		·	<del></del>		<u> </u>	<u> </u>				<u> </u>		<del></del>	<del></del>		<u> </u>	<u> </u>			·		<u> </u>	
Antimony			30 30		30	300	18.8	2.10	-	-   -			-	<u> </u>	-	< 0.483	- [	0.2415						UJ 0.	.3525	- [	- 👢 -			0.2785		J 0.2815	j		< 0.563 UJ	0.2815
Arsenic			20 20		50	500	65.3	5.48				<u> </u>		<u> </u>	-	1.62	<u>_</u>	-					8.02	<u>_</u>		<u> </u>	<u>-                                    </u>		<b>92</b> J-		1.88 J			<u> </u>	9.43	<u> </u>
Barium					5,000	10,000	1,390	64.9						<del>  -  </del>		17.2							15.7						'.9 J-		49.2 J				52.5	
Beryllium Cadmium			200 200 60 60		200 60	2,000 1,000	2.48 406	0.494 14.4				<u> </u>		+=+		0.632 0.167							0.317 0.539					0.0	.4 J- 801		0.47 J 0.0968 -			<del> </del>	0.556 0.485	
Chromium			200 200		200	2,000	303	19.8			-			++		7.07			-				4.16				-   -	6.			6.3 J	-			17.6	
Lead			600 600		600	6,000	2,490	234						1	-	9.04	i	-					66.9			- 1		6.			6.03 J			-	116	-
Nickel			1,000 1,000		1,000	10,000	902	44.3	- 1			T - I -	-	T - T	-	6.88	- 1	-		-   -			19.5			-		6.		-	6.47			-	36.5	-
Selenium			700 700		700	7,000	2.05	0.459	-	-   -		<u> </u>	-	<u> </u>	-	< 0.483	- 1	0.2415					< 0.705		.3525	- 1	-   -	< 0.						-	< 0.563	0.2815
Silver			200 200		200	2,000	26.9	1.25						<u> </u>		< 0.483	Ţ	0.2415	<u>[</u>				< 0.705		.3525		-   -	< 0.		0.2785	< 0.563 -	0.2815	;	<u> </u>	< 0.563	0.2815
Vanadium			40 40		50	7,000	526	28.8				<u> </u>		<u> </u>		18.7					-   -		6.04						2.3 J-					ļ	18.3	
Zinc Mercury			3,000 3,000 30 30		5,000	10,000 300	13,800 15.8	854 0.658						<del> </del>		55 0.0134						-	217 0.0565	J-		-			i.9 .11	0.055	<b>33.8</b> - < 0.105 -	0.0525		<del> </del>	176 J- 0.0343	-
IVIETCUTY	20	۷U	ას ას	JU	ას	300	10.8	U.ნეგ	- i	- i -	-	1 - 1 -		<u> i</u>	-	0.0134	- i	-	- 1	- ; -	- : -	· i -	0.0000	- i	-	- :	i	< 0	.11	0.055	< U.105	0.0525	, - ; -		v.V343	į -

#### . . .

mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

\* = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.
< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

											S-68		S-69			S-69		S-70		5-70	S-71	•		S-71		S-7	2	\$-7	2	e	-73		S-73		S-74	
			MCP M	ethod 1/3 S	oil Standards			Maximum Detected	Exposure Point		3-00 30/2014		7/30/2014			30/2014		9/2014		9/2014	7/29/20			7/29/2014		7/31/2		7/31/2			73 /2014		7/31/2014		7/31/20	
Analytes				& S-2 &	S-3 &		UCL	Concentration	Concentrations (mg/Kg)		6-7		3-4			6-7		3-4		6-7*	3-4			6-7		3-4		6-7	7		-4		6-7		3-4	
	GW-2	GW-3	GW-	2 GW-3	GW-2	GW-3	UCL	(mg/Kg)	(9/1.9/	Result	Qual. 1/2 R	L Result	Qual.	1/2 RL	Result	Qual. 1/2 RL	Result	Qual. 1/2 RL	Result (	Qual. 1/2 RL	Result Qual.	l. 1/2 RL	Result	Qual.	1/2 RL	Result Qua	l. 1/2 RL	Result Qua	al. 1/2 RL	Result Qu	ual. 1/2 RL	Result	Qual. 1/2	RL Resu	ult Qual.	1/2 RL
Volatile Organic Compounds  1,2,4-Trichlorobenzene	6	700	6	3,000	6	5,000	10,000	2.45	0.210				I - I		1	•	1	-   -		1						-   -	1	-   -		- 1	ı					1
1,2-Dichlorobenzene	100					300	10,000	2.43	0.210	-			+			_   _			-					<del>                                     </del>												
1,3-Dichlorobenzene	100					500	5,000	15.8	1.32				1 - 1		- 1	-   -		1		-   -	-   -	-		<del>                                     </del>			<u> </u>	-   -	-				-   -			
1,4-Dichlorobenzene	1	80		400		2,000	10,000	24.2	2.02		- [ -		I -		- [	- ] -		[		- [						- [		[	-			-	- ] -			
2-Butanone (MEK)	50					400	10,000	0.0403	0.0193	-	_		<u> </u>	-		-   -					-   -			<u> </u>		-   -		-   -		-			-   -			<u> </u>
Acetone Benzene**	50 40					400 1,000	10,000 10,000	0.167 0.526	0.0566 0.0473				<u> </u>	-										<del>  -  </del>		-   -						-				<u> </u>
Carbon Disulfide	NA				NA	NA	10,000 NA	0.0241	0.0473				+											<del>                                     </del>												<del> </del>
Chlorobenzene	3	100		100	3	100	10,000	105	8.76	-			T -			-   -								l - l					-			-				
cis-1,2-Dichloroethylene	0.1				0.1	500	5,000	0.000817	0.000817	-	-   -				- 1		-	-   -		-   -				-		- 1 -	İ -	-   -	-			-			1 -	
Ethylbenzene**	500					3,000	10,000	0.0281	0.00376		_		<u> </u>	-		-   -	-			-   -						- [ -			-			-				
m+p Xylene**	100					3,000	10,000	0.00581	0.00321				<u> </u>											<u> </u>						-						
Methyl tert-Butyl Ether (MTBE)** Naphthalene**	100 20					500 3,000	5,000 10.000	0.00268 1.16	0.00157 0.228				- <b> </b>											<del> </del>												<u> </u>
o-Xylene**	100					3,000	10,000	0.00244	0.00159		_   _			-									<del></del>	<del>                                     </del>						-						
p-Isopropyltoluene (p-Cymene)	NA				NA NA	NA	NA	0.00244	0.00167	-			<b>†</b> -		-		T - 1		-			-		1 - 1		-   -	-	-   -	-			-			-	-
Tetrachloroethylene	10	30	10	200		1,000	10,000	0.0266	0.00512	<u> </u>	- [ -		Ţ - Ţ	-	- [	- [ -	- [	- [ -						<u> </u>		- [ -			-	-			- [ -			-
Toluene**	500					3,000	10,000	0.0306	0.00514		-   -					-   -		-   -						- [		-   -			-		<del> </del>		-   -			
Trichloroethylene	0.3	30	0.3	60	0.3	60	600	0.00206	0.00149		-   -		-		-					-   -		-		<u> </u>		-   -		-   -	-	-	-   -					<u> </u>
Volatile Petroleum Hydrocarbons (mg/li C5-C8 Aliphatics (adjusted)	<b>kg)</b>	100	500	500	500	500	5.000	2.27	1.09		- 1 -		1 _ 1	-		_   _	_ [	_   _		_   _		1 _		I _ I	_	_	T -		_		_	-				I
C9-C12 Aliphatics (adjusted)	1,000					5,000	20,000	0.733	0.270				<del>  -</del>																			-				
C9-C10 Aromatics	100					500	5,000	33.1	6.96	- 1	-   -		-		-	-   -	-	-   -		-   -				l – l		-	-	- 1	-			-	-   -			
	mg/kg)																																			
C9-C18 Aliphatics	1,000						20,000	2,390	265	. <u> </u>			<u> </u>		<u> </u>									<u>  -                                     </u>			<u>i</u>	-   -			-					<u> </u>
C19-C36 Aliphatics	3,000 1,000					5,000 5,000	20,000 10,000	3,230 1,150	366 186	-				-															-			-				
C11-C22 Aromatics (Adjusted) 2-Methylnaphthalene	1,000				5,000	5,000	5,000	1,150 4.50	1.67				+ - +-											<del>                                     </del>												ļ <u>.</u>
Acenaphthene	1,000					5,000	10.000	3.86	1.54	- T	_   _		† <u>-</u> †					-   -						<del>-</del>				-   -		-		-			<del></del>	-
Acenaphthylene	600			) 10		10	10,000	3.90	1.56	- 1			1 -		- 1	-   -	-	-   -		-   -		-				- 1 -		- 1 -	-			-	- 1 -			
Anthracene	1,000	1,000				5,000	10,000	7.75	2.75		- [ -		<u> </u>		- ]	- ] -	-	- ] -		-				- [		- [ -	<u> </u>	- [ -	-	-			- ] -			-
Benzo(a)anthracene	7	7	40			300	3,000	7.27	2.68	<u> </u>														-				-   -	-			-	-   -			
Benzo(a)pyrene Benzo(b)fluoranthene	2	2 7	40	7 40	30 300	30 300	300 3,000	5.81 6.40	2.16 2.33				<u> </u>											<del>  -  </del> -		-   -						-			<u>-</u>	<del>  -</del>
Benzo(g,h,i)perylene	1,000					5,000	10,000	2.38	1.05	<u>-</u>			+ = +-			- + -		-						<del>                                     </del>			<del></del>									<del>                                     </del>
Benzo(k)fluoranthene	70					3,000	10,000	4.12	1.63		-   -		1 -		- 1	- 1 -	-	-   -				-		1 - 1			<u> </u>		-							
Chrysene	70	70		400	3,000	3,000	10,000	10.3	3.69	- [	-   -		Ì -		- [	- 1 -		- ] -				-		- İ		- j	Ì -		-				- Ì -			-
Dibenz(a,h)anthracene	0.7				30	30	300	2.18	0.983		-   -				- [	-   -	-	-		-   -						- [ -			-	-		-	-   -			-
Fluoranthene	1,000					5,000	10,000	18.7	6.5				<u> </u>											<u> </u>						-						
Fluorene Indeno(1,2,3-cd)pyrene	1,000	1,000 7	3,00		5,000 300	5,000 300	10,000 3,000	7.08 2.70	2.62 1.16	<b> </b>			+ = +-						-							-   -			-	-	_	-				-
Phenanthrene	500					3,000	10,000	16.2	5.74				+											<del>                                     </del>			<del></del>									<u> </u>
Pyrene		1,000		0 3,000			10,000	12.6	4.50	-			<b>†</b> -		-							-		-			-		-						-	
Polychlorinated Biphenyls (mg/kg)															-							<u> </u>					<u> </u>	<u> </u>			<u> </u>					
Aroclor-1242	1	1	4		4	4	100	36.2	0.521	0.0.22	- 0.021		. <b> </b>		< 0.0387	0.01935		0.01735	0.0000		< 0.035	<b>.</b>	< 0.0359	.i	.01795	0.173 J+		< 0.0493	0.02465		- 0.0209		0.01			0.0194
Aroclor-1248 Aroclor-1254	1 1	1	4		4	4	100 100	0.0914 33.4	0.0238 0.448	< 0.0422 < 0.0422	- 0.021 - 0.021				< 0.0387 < 0.0387	0.01935 0.01935		0.01735 0.01735			< 0.035 < 0.035		< 0.0359 < 0.0359		.01795	< 0.171 <b>0.719</b> J+	0.0855	< 0.0493 < 0.0493	0.02465 0.02465	< 0.0418	- 0.0209 - 0.0209		- 0.01	745 < 0.03 745 < 0.03		0.0194 0.0194
Aroclor-1260	1 1	1 1	4		4	4	100	33.4 195	0.448 2.14	< 0.0422	- 0.021 - 0.021		+		< 0.0387 0.0511	0.01935 J	< 0.0347	- 0.01735 0.01735			< 0.035 < 0.035	0.0175				0.719 J+ < 0.171	0.0855	< 0.0493 < 0.0493	0.02465	< 0.0418	- 0.0209 - 0.0209			745 < 0.03 745 < 0.03		0.0194
Total PCBs	1	1				4	100	195	4.01	ND	- 0.021		T -		0.0511		ND	0.01733	ND	- 0.01615	ND		ND	.;		0.892	0.0000	ND	0.02403	ND	0.0209	ND	0.01			
Metals (mg/kg)																•		<u> </u>			<u> </u>					<u> </u>				<u> </u>	•					
Antimony	20					30	300	18.8	2.10		UJ 0.318	3	-	- ]	- [		-	-   -	-		< 0.53	0.265			0.272			-   -	-	- ]	-					
Arsenic	20					50	500	65.3	5.48	1.95			<u> </u>						_		1.5 -		2.1	<del>  -  </del>				<u> </u>								
Barium Beryllium	1,000 90	• • • • • • • • • • • • • • • • • • • •				5,000 200	10,000 2,000	1,390 2.48	64.9 0.494	14 0.402			<u> </u>								17.8 J+ 0.456		17.1 0.409	J+												<del></del>
Cadmium	70				60	200 60	1,000	2.48 406	0.494 14.4	0.402			T-	-		_   _					0.0964		0.409	<del>                                     </del>								-	-			<u>-</u>
Chromium	100					200	2,000	303	19.8	4.79	-   -		T -		- 1		-	-   -	-		4.7 -	-	6.14	-		-   -	<u> </u>			-					<del>-</del>	-
Lead	200					600	6,000	2,490	234	17.7	-   -		1 - 1		- <u></u>	- 1 -		- ] -			6.15	-	5.69	<u> </u>				<u> </u>		- 1	-		- [ -			
Nickel	600					1,000	10,000	902	44.3	3.97	- [ -		ļ - ļ	-		- [ -	- [	- ] -			4.62	-	4.96			[		- <b> </b> -		- ]	-	-	[			J
Selenium	400				700	700	7,000	2.05	0.459	< 0.636	- 0.318		ļ - ļ			-   -					< 0.53	0.265	< 0.544		0.272											ļ <u>-</u>
Silver Vanadium	100 400				200 50	200 50	2,000 7,000	26.9 526	1.25 28.8	< 0.636 10.2	- 0.318	5	<del>                                     </del>								< 0.53 12.4 J+	0.265	< 0.544 12.5	<u> </u>	0.272											ļ
Zinc	1,000					5,000	10,000	13,800	28.8 854	10.2 51.3			+								12.4 J+ 40.6		12.5 39.5	J+ 				<del> </del>								<del> </del>
Mercury	20					30	300	15.8	0.658	0.0466			<del>                                     </del>		-	-   -					< 0.1	0.05		- (	0.0565		<del></del>		-	-			-			<del>-</del>
o.ou.y	- 20	20	1 30	30	- 00	00	000	10.0	0.000	0.0400												. 0.00	- 0.110					<del> </del>								

#### . . .

mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

Only constituents that have been detected at least once among relevant samples are presented.

 $^\star$  = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.
< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

												S-74	S-75	S-75		S-76		6-76	S-78		S-78		S-79			S-79		S-80		S-81		S-8	4
				MCP Me	thod 1/3 Se	oil Standards			Maximum Detected	Exposure Point			29/2014	7/29/20		7/29/2014		9/2014	7/31/2014		7/31/2014		7/31/2014			31/2014	7	7/29/2014		7/29/20	14	7/29/2	
Analytes		1 &	S-1 &	S-2 8	S-2 &	S-3 &		UCL	Concentration	Concentrations (mg/Kg)		6-7	3-4	6-7		3-4		6-7	3-4		6-7		3-4			6-7		3-4		3-4		6-7	
	G۱	V-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/ng/	Result	Qual. 1/2 RL Result	Qual. 1/2 RL	Result Qual.	1/2 RL	Result Qual. 1/2 RL	Result	Qual. 1/2 RL Res	sult Qual.	1/2 RL Res	ult Qual.	1/2 RL	Result Qual. 1/2	RL I	Result	Qual. 1/2 RL	Result	Qual. 1/2 F	RL Resul	Qual.	1/2 RL	Result Qua	i. 1/2 RL
Volatile Organic Compounds						_							<u> </u>					•	<del></del>	i						<u> </u>				-			4
1,2,4-Trichlorobenzene 1,2-Dichlorobenzene		6 00	700 300	6 100			5,000 300	10,000 10.000	2.45 2.10	0.210 0.181									·					·					-			-   -	-
1,3-Dichlorobenzene		00	100	200			500	5,000	2.10 15.8	1.32																							
1,4-Dichlorobenzene		1	80	1	400		2,000	10,000	24.2	2.02					<del>                                     </del>															+	†           †		<u> </u>
2-Butanone (MEK)		50	400	50			400	10,000	0.0403	0.0193					-	-   -   -	-				- 1 - 1		-   -   -		-	-   -	-			-	-		-
Acetone		50	400	50	400		400	10,000	0.167	0.0566			- [		-	- [ - [ -	- j		- [ -		· [ - [		- [ - [ -		-	- I -	- [			I -	-		-
Benzene**		10	40	200			1,000	10,000	0.526	0.0473					-	-   -   -	- [	-	-   -		_   -		-   -		-	-   -	-				-		
Carbon Disulfide		IA.	NA	NA			NA	NA	0.0241	0.00583								-   -   -											-				
Chlorobenzene	0	3	100 100	0.1	100 500		100 500	10,000 5,000	105 0.000817	8.76 0.000817					-			-   -   -						·					-				-
cis-1,2-Dichloroethylene Ethylbenzene**			500	1,000			3,000	10,000	0.000817	0.000817																				<u> </u>	<del> </del>		
m+p Xylene**		00	500	100			3,000	10,000	0.00581	0.00370											<del>-   -  </del>								-		<u> </u>		
Methyl tert-Butyl Ether (MTBE)**		00	100	100			500	5,000	0.00268	0.00157					-	-   -   -	- 1		·		-   -		-   -   -		- 1	-   -	- 1			-	-		-
Naphthalene**			500	20	1,000	20	3,000	10,000	1.16	0.228					-		- 1		- 1 -		-		-   -   -		-	- 1 -	- 1			<u> </u>	İ -		-
o-Xylene**		00	500	100			3,000	10,000	0.00244	0.00159					-	-   -   -	- [		-   -		- [		-   -   -			-   -	- 1				- 1		-
p-Isopropyltoluene (p-Cymene)		IA	NA	NA			NA	NA 10.000	0.00369	0.00167						_			·												<u> </u>		
Tetrachloroethylene Toluene**		00 00	30 500	1.000	200 1,000	2,000	1,000	10,000 10,000	0.0266 0.0306	0.00512 0.00514														·									
Trichloroethylene		.3	30	0.3			3,000	600	0.0306	0.00514					+					ļ			-   -								<u> </u>		
Volatile Petroleum Hydrocarbons (mg/			55	0.3	UU	0.0	00	000	0.00200	0.00143										-					i				-				
C5-C8 Aliphatics (adjusted)		00	100	500	500	500	500	5,000	2.27	1.09					-		- I		-   -				-   -   -		- 1	-   -	- 1	-   -	-	1 -	-	-   -	T -
C9-C12 Aliphatics (adjusted)	1,0	000	1,000	3,000	3,000	5,000	5,000	20,000	0.733	0.270					-		- 1		- 1		-				-	- 1 -	1			1 -	-		-
C9-C10 Aromatics	1	00	100	500	500	500	500	5,000	33.1	6.96					-		-								-					-	-		-
	(mg/kg												•	•				<u> </u>		:											,		
C9-C18 Aliphatics C19-C36 Aliphatics			1,000 3,000	3,000 5.000			5,000	20,000 20.000	2,390 3,230	265 366			_=_								·			·							<del> </del>		
C11-C22 Aromatics (Adjusted)			1,000	3,000			5,000	10,000	3,230 1,150	186																					-		
2-Methylnaphthalene		30	300	80			500	5,000	4.50	1.67															- <u>-</u>						<u> </u>		
Acenaphthene				3,000			5,000	10,000	3.86	1.54					-		- 1		· -		-   -				-					<del>-   -</del>	<u> </u>		-
Acenaphthylene	6		1,000 10	600			10	10,000	3.90	1.56					i -		- Î		i -				-   -   -		-	- 1 -	- 1			<u> </u>	i -		-
Anthracene	1,0	000	1,000	3,000			5,000	10,000	7.75	2.75			- [ -		-	- [ - ] -	- [						- [ - [ -		-	- [ -	- [			<u> </u>			
Benzo(a)anthracene		7	7	40	40		300	3,000	7.27	2.68					-												-						
Benzo(a)pyrene		2	7	7 40	7 40	30	30	300	5.81	2.16									·						<u> </u>		<u>-</u>				ļ		
Benzo(b)fluoranthene Benzo(g,h,i)perylene	11	000	1,000	3,000			300 5,000	3,000 10,000	6.40 2.38	2.33								-   -   -													+		
Benzo(k)fluoranthene		70	70	400			3,000	10,000	4.12	1.63					<u> </u>										-						<u> </u>		
Chrysene		70	70	400			3,000	10,000	10.3	3.69						-   -   -	-				-   -				-	-   -					<u> </u>		-
Dibenz(a,h)anthracene			0.7	4	4	30	30	300	2.18	0.983					i -		- 1		i -		-   -		-   -   -		-	-   -	- 1			<u> </u>	<u> </u>		-
Fluoranthene			1,000	3,000			5,000	10,000	18.7	6.5			- [		-	[ _ [ _	-						-   -   -		-	- [ -	-			<u> </u>			
Fluorene			1,000	3,000			5,000	10,000	7.08	2.62	-						-																
Indeno(1,2,3-cd)pyrene		7	7	40	40		300	3,000	2.70	1.16														·							<u> </u>		
Phenanthrene Pyrene			500 1,000	1,000	1,000		3,000 5,000	10,000 10,000	16.2 12.6	5.74 4.50									: ·					<del></del>						<del></del>			
Polychlorinated Biphenyls (mg/kg)	-,,		.,	5,000	3,330	2,000	.,	,000	.2.0									•	-														
Aroclor-1242		1	1	4	4	4	4	100	36.2	0.521	< 0.0399	- 0.01995 < 0.0358	- 0.0179	< 0.0358	0.0179	< 0.0361 0.01805	< 0.036	- 0.018 <b>0.6</b>	42	< 0.00	377	0.01885	< 6.92 3.4	l6 <	0.0377	- 0.01885			< 0.034	1	0.01705	< 0.0339	0.01695
Aroclor-1248		1	1	4	4		4	100	0.0914	0.0238	< 0.0399			< 0.0358			< 0.036	- 0.018 < 0.0		NC < 0.03		0.01885			0.0377	0.01885							0.01695
Aroclor-1254		1	1	4	4	4	4	100	33.4	0.448	< 0.0399			< 0.0358			< 0.036	0.018 <b>2.0</b>		- 0.02			33.4		0.0377	- 0.01885			< 0.034		0.01705	< 0.0339	0.01695
Aroclor-1260 Total PCBs		1	1 1	4			4	100 100	195 195	2.14 4.01	< 0.0399 ND		0.0179 	< 0.0358			< 0.036	- 0.018 < 0.3	347 <b>82</b>	0.1735 < 0.03 - <b>0.02</b>		0.01885	< 6.92 3.4 33.4		).0105 ).0105	J -					0.01705	0.205 0.205	
		1	1	4	4	4	4	100	195	4.01	ND	ND		ND	-	ND	ND	2.6	82	- 0.02	201		33.4	. (	J.U1U5	_   _		-   -	ND		! -	0.205	-
Metals (mg/kg) Antimony	-	20	20	30	30	30	30	300	18.8	2.10			_   _	_   _		_   _   _	_ 1	_	.   _	< 0.5	573 UJ	0.2865	-   -   -		- 1	- 1 -	< 0.554	- 0.27	7	1 -	-	_   _	-
Arsenic		20	20	20			50	500	65.3	5.48					-	_				- 6.9			-   -   -		-		2.22	- 0.21			-	-   -	-
Barium			1,000	3,000			5,000	10,000	1,390	64.9					İ -	<u> </u>	1	- [ - ] -	· [ -	- 44.	.8		<u> </u>			-   -	17.3	J+		<u> </u>	Ì -	-   -	
Beryllium		90	90	200			200	2,000	2.48	0.494						- [ - ] - [		-   -   -		- 0.42			- [ - [ -			- [ -	0.518				ļ — —		
Cadmium		70	70	60			60	1,000	406	14.4					-	-   -   -	<u> </u>		·   -		3		-   -		- [	-   -	0.195				-	-   -	
Chromium		00	100	200	200		200	2,000	303	19.8					ļ				-   -	- 9.4				·	<u> </u>	- ļ -	4.29				<u> </u>	-   -	
Lead Nickel		00 00	200 600	1,000	600 1,000		600 1,000	6,000 10,000	2,490 902	234 44.3							-		·		.6 .6	 		·			17.3 4.43				<del>                                     </del>		
Selenium		00	400	700	700		700	7,000	2.05	0.459					<del></del>					- 14. - < 0.5		0.2865		<del> </del>			<b>4.43</b> < 0.554	- 0.27			<del>                                     </del>		
Silver		00	100	200			200	2,000	26.9	1.25				T - T -	T -	_   _		-   -   -		- < 0.5		0.2865	_   _   _				< 0.554	- 0.27		+-	<b>†</b> - †	-   -	
Vanadium			400	40			50	7,000	526	28.8					<u> </u>	- 1 - 1 - 1		-   -   -		- 17.						-   -	10.3	J+			<u> </u>		-
Zinc	1,0	000	1,000	3,000	3,000	5,000	5,000	10,000	13,800	854						- [ - ]	- Ì			- 36 <sup>-</sup>					-		50		-	<u> </u>			
Mercury	2	20	20	30	30	30	30	300	15.8	0.658					-		- [		-   -	- 0.21	19		-   -   -		- "	-   -	0.0112		-	-	-	-   -	-
																· ·																	

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mg/kg = Milligrams per kilogram.

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\* = The highest detected concentration between primary and field duplicate samples is presented.

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented. < = Constituent is not detected; value presented is the laboratory reporting limit (RL).

Data qualifiers presented in the "Qual." column are defined thus: A "UJ" indicates that a non-detect result was qualified as estimated. A "J" indicates that a detected result was qualified as estimated. A plus (+) or minus (-) sign indicates the direction of potential bias, if known. An "R" indicates that data were rejected due to gross failure.

Exposure Point Concentrations (EPCs) were calculated based upon the average concentrations across the entire disposal site for each constituent that was detected at least one time during assessment activities.

To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

Method 1 S-1 Risk Characterization standards presented in this table are the most conservative standards applicable to the future uses of the site without institutional controls (i.e., an Activity and Use Limitation).

A. al. da			MCP Metho	od 1/3 Soil	Standards	;		Maximum Detected	Exposure Point Concentrations		S-82 7/29/2014	1		<b>S-82</b> 7/29/2014	ı
Analytes	S-1 & GW-2	S-1 & GW-3	S-2 & GW-2	S-2 & GW-3	S-3 & GW-2	S-3 & GW-3	UCL	Concentration (mg/Kg)	(mg/Kg)	Result	3-4 Qual.	1/2 RL	Result	6-7 Qual.	1/2 RL
Volatile Organic Compounds	0.1.2	J U	J.: 2	0	0.1. 2	0		1 3 3/		rvesuit	Quai.	1/Z IXL	rvesuit	Quai.	I/Z INL
1,2,4-Trichlorobenzene	6	700	6	3,000	6	5,000	10,000	2.45	0.210		I -		-		-
1,2-Dichlorobenzene	100	300	100	300	100	300	10,000	2.10	0.181		· -		-		
1,3-Dichlorobenzene	100	100	200	500	200	500	5,000	15.8	1.32		-			i	
1,4-Dichlorobenzene	1	80	1	400	1	2,000	10,000	24.2	2.02				-		
2-Butanone (MEK)	50	400	50	400	50	400	10,000	0.0403	0.0193						-
Acetone	50	400	50	400	50	400	10,000	0.167	0.0566						-
Benzene**	40	40	200	200	400	1,000	10,000	0.526	0.0473		-	-	-		-
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	0.0241	0.00583			<u> </u>		<u> </u>	
Chlorobenzene	3	100	3	100	3	100	10,000	105	8.76		<u> </u>	-	-		
cis-1,2-Dichloroethylene	0.1	100	0.1	500	0.1	500	5,000	0.000817	0.000817			ļ			
Ethylbenzene**	500	500	1,000	1,000	1,000	3,000	10,000	0.0281	0.00376		<u> </u>	ļ <u> </u>	<u> </u>	ļ <u>-</u>	ļ <u>-</u>
m+p Xylene**	100	500	100	1,000	100	3,000	10,000	0.00581	0.00321		ļ	ļ <u>-</u>		ļ <u>-</u>	ļ
Methyl tert-Butyl Ether (MTBE)**	100	100	100	500	100	500	5,000	0.00268	0.00157		<u> </u>		-		
Naphthalene**	20	500	20	1,000	20	3,000	10,000	1.16	0.228						ļ
o-Xylene**	100	500	100	1,000	100	3,000	10,000	0.00244	0.00159		ļ -	-	-	ļ <u>-</u>	-
p-Isopropyltoluene (p-Cymene)	NA 40	NA 20	NA 40	NA	NA 40	NA 4.000	NA 40.000	0.00369	0.00167	ļ	<u> </u>	<u> </u>	<del> </del>	<u> </u>	<u> </u>
Tetrachloroethylene	10 500	30	10	200 1.000	10	1,000	10,000	0.0266 0.0306	0.00512		<del> </del>	<u> </u>	<u> </u>		ļ
Toluene**	0.3	500 30	1,000 0.3	1,000 60	2,000 0.3	3,000 60	10,000 600	0.0306 0.00206	0.00514 0.00149	ļ <u></u>	<del> </del>	-	<del> </del>		ļ <u>-</u>
Trichloroethylene		30	0.3	ю	0.3	60	600	0.00206	0.00149		-				
Volatile Petroleum Hydrocarbons (mg/k C5-C8 Aliphatics (adjusted)	<b>g)</b> 100	100	500	500	500	500	5,000	2.27	1.09		1 _	I	-		
	1,000	1,000	3,000	3,000	5,000	5,000	20,000	0.733	0.270		<del>  -</del>	}	-	ļ <u>-</u>	
C9-C12 Aliphatics (adjusted) C9-C10 Aromatics	1,000	1,000	500	500	5,000	5,000	5,000	33.1	6.96		<del> </del>	-	<u> </u>		ļ
Extractable Petroleum Hydrocarbons (r		100	500	500	500	500	5,000	33.1	0.90		<u> </u>		-		
C9-C18 Aliphatics	1,000	1,000	3,000	3,000	5,000	5,000	20,000	2,390	265		-			-	
C19-C36 Aliphatics	3,000	3,000	5,000	5,000	5,000	5,000	20,000	3,230	366		<del>  -</del>	-	<u></u>		
C11-C22 Aromatics (Adjusted)	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,150	186		-	-	-		
2-Methylnaphthalene	80	300	80	500	80	500	5,000	4.50	1.67		†	<del>                                     </del>		····	
Acenaphthene	1,000	1,000	3,000	3,000	5,000	5,000	10,000	3.86	1.54		†	-			-
Acenaphthylene	600	10	600	10	600	10	10,000	3.90	1.56		† -	l	-		-
Anthracene	1,000	1,000	3,000	3,000	5,000	5,000	10,000	7.75	2.75		-		-		
Benzo(a)anthracene	7	7	40	40	300	300	3,000	7.27	2.68		-	-			-
Benzo(a)pyrene	2	2	7	7	30	30	300	5.81	2.16			-	-		-
Benzo(b)fluoranthene	7	7	40	40	300	300	3,000	6.40	2.33		-	-	-		-
Benzo(g,h,i)perylene	1,000	1,000	3,000	3,000	5,000	5,000	10,000	2.38	1.05		-	-	-		-
Benzo(k)fluoranthene	70	70	400	400	3,000	3,000	10,000	4.12	1.63		-	-	-	-	-
Chrysene	70	70	400	400	3,000	3,000	10,000	10.3	3.69	<u> </u>		<u> </u>		<u> </u>	<u> </u>
Dibenz(a,h)anthracene	0.7	0.7	4	4	30	30	300	2.18	0.983		-	-	-		-
Fluoranthene	1,000	1,000	3,000	3,000	5,000	5,000	10,000	18.7	6.5					<u> </u>	
Fluorene	1,000	1,000	3,000	3,000	5,000	5,000	10,000	7.08	2.62		-	-	-	<u> </u>	-
Indeno(1,2,3-cd)pyrene	7	7	40	40	300	300	3,000	2.70	1.16						
Phenanthrene	500	500	1,000	1,000	3,000	3,000	10,000	16.2	5.74		-	-			Ļ <u>-</u>
Pyrene	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12.6	4.50		<u> </u>	l -	-	-	<u> </u>
Polychlorinated Biphenyls (mg/kg)							45-	05 -	0.57						
Aroclor-1242	11	1	4	4	4	4	100	36.2	0.521	< 0.0351	<u> </u>	0.01755	< 0.0355		0.01775
Aroclor-1248	1	11	4	4	4	4	100	0.0914	0.0238	< 0.0351		0.01755	< 0.0355	ļ	0.01775
Aroclor-1254	11	11	4	4	4	4	100	33.4	0.448	< 0.0351		0.01755	< 0.0355		0.01775
Aroclor-1260 Total PCBs	<u>1</u> 1	<u>1</u> 1	4	4	4	4	100 100	195 195	2.14 4.01	< 0.0351 ND	<u> </u>	0.01755	< 0.0355 ND	<u> </u>	0.01775
	1	1	4	4	4	4	100	195	4.01	NU	1 -		NU	-	-
Metals (mg/kg)	20	20	20	20	20	20	300	18.8	2.40		1				
Antimony Arsenic	20 20	20 20	30 20	30 20	30 50	30 50	300 500	18.8 65.3	2.10 5.48	ļ <u></u>	<del> </del>	ļ	<del> </del>	ļ	<u> </u>
	1,000	1,000	3,000		5,000						<del> </del>	<u> </u>			
Barium	1,000	1,000	200	3,000 200	5,000 200	5,000 200	10,000 2,000	1,390 2.48	64.9 0.494		<u> </u>				
Beryllium Cadmium	70	90 70	60	60	60	60	1,000	2.48 406	0.494 14.4		<u> </u>	-	-		L
Chromium	100	100	200	200	200	200	2,000	303	19.8	} <u>-</u>	+	<u> </u>	<del></del>		
Lead	200	200	600	600	600	600	6,000	2,490	234	<del>-</del>	<del> </del>	<u> </u>	<del> </del>	<del> </del>	ļ <u>-</u>
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	902	44.3		+	<u> </u>	<del></del>	<del> </del>	<u> </u>
Selenium	400	400	700	700	700	700	7,000	2.05	0.459		<del>  -</del>				
Silver	100	100	200	200	200	200	2,000	26.9	1.25	<u>-</u>	†- <u>-</u> -	l	<del></del>	<del>  -</del>	<u>-</u>
U			40	40	50	50	7,000	526	28.8		-	-	-		
Vanadium	400														
Vanadium Zinc	400 1,000	400 1,000	3,000	3,000	5,000	5,000	10,000	13,800	854		<u> </u>	-		ļ	

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175 & 189 Intervale Street, Quincy, MA

			MCP Met	hod 1/3 Soil	Standards			Maximum	Exposure Point		WCVS-1			WCVS-1			WCVS-2			WCVS-2	
Analytes					otanua uo			Detected	Concentrations		5/12/2014			5/12/2014			5/12/2014	<b>.</b>		5/12/2014	<i>t</i>
7 mary too	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		0-0.25*	<b>.</b>		2.5-3	Ų		0-0.25			2.5-3*	a <b></b>
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	<b>55</b> L	(mg/Kg)	( 3 3)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.183		0.0915	< 0.39		0.195	< 0.0342		0.0171	< 0.176		0.088
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.183		0.0915	< 0.39		0.195	< 0.0342		0.0171	< 0.176		0.088
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.183		0.0915	< 0.39		0.195	< 0.0342		0.0171	< 0.176		0.088
Aroclor-1260	1	1	4	4	4	4	100	33. <b>4</b>	2.39	0.793			< 0.39		0.195	0.0488			< 0.176		0.088
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	0.793			ND			0.0488			ND		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	1.89			< 0.593		0.2965	< 0.578		0.289	< 0.528		0.264
Arsenic	20	20	20	20	50	50	500	16.7	6.97	16.7			7.2			9.59			9.03		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	46.1			128			31			54		
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	0.342			0.349			0.351			0.52		
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	1.69			1.81			0.45			0.577		
Chromium	100	100	200	200	200	200	2,000	129	27.3	20.3			9.12			11.9			8.6		
Lead	200	200	600	600	600	600	6,000	4,290	671	162	J-		270	J-		28.4	J-		214	J-	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	17			11			14.7			10.3		
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	1.09			< 0.593		0.2965	< 0.578		0.289	< 0.528		0.264
Silver	100	100	200	200	200	200	2,000	6.52	0.830	< 0.586		0.293	< 0.593		0.2965	< 0.578		0.289	< 0.528		0.264
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	12.9			28.5			9.03			27		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	679			665			73			120		
Mercury	20	20	30	30	30	30	300	2.74	0.815	0.0892			0.248			< 0.106		0.053	0.143		

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175 & 189 Intervale Street, Quincy, MA

			MCD Moti	nod 1/3 Soil	Standards			Maximum	5 5		WCCS-1			WCCS-1			WCCS-2			WCCS-2	
Amalutas			IVICE IVIELI	100 1/3 3011	Statiualus			Detected	Exposure Point Concentrations		5/12/2014			5/12/2014			5/12/2014			5/12/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		0.25-0.5			2.5-2.75			0.5-0.75			1.5-1.75	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/Ng)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)														•							
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.215		0.1075	< 0.906		NC	< 0.0865		0.04325	< 0.687		NC
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.215		0.1075	< 0.906		0.453	< 0.0865		0.04325	< 0.687		0.3435
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.215		0.1075	4.53	J		< 0.0865		0.04325	< 0.687		0.3435
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	< 0.215		0.1075	< 0.906		0.453	0.0827	J		2.21	J	
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	ND			4.53			0.0827			2.21		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	< 0.56		0.28	1.64			< 0.565		0.2825	23.4		
Arsenic	20	20	20	20	50	50	500	16.7	6.97	2.37			9.41			3.44			4.54		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	19.4			260			38.6			68.6		
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	0.216			0.518			0.295			0.392		
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	0.233			8.82			0.913			2.62		
Chromium	100	100	200	200	200	200	2,000	129	27.3	6.19			40.6			5.51			11.1		
Lead	200	200	600	600	600	600	6,000	4,290	671	20.7			589			44.4			1080		
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	4.93			1350			5.77			14.2		
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	< 0.56		0.28	0.99			0.484			< 0.605		0.3025
Silver	100	100	200	200	200	200	2,000	6.52	0.830	< 0.56		0.28	0.716			< 0.565		0.2825	< 0.605		0.3025
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	8.79	J-		14.1	J-		8.66	J-		11.3	J-	
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	48.5			1740			140			386		
Mercury	20	20	30	30	30	30	300	2.74	0.815	0.0527	J+		0.996	J+		0.058	J+		0.315	J+	

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175 & 189 Intervale Street, Quincy, MA

			MCD Meth	d 4/2 Co.il	Ctou doudo			Maximum			WCCS-3			WCCS-3			WCCS-4			WCCS-4	
Analysis			MCP Metr	nod 1/3 Soil	Standards			Detected	Exposure Point		5/12/2014			5/12/2014			5/12/2014			5/12/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	Concentrations (mg/Kg)		0.25-0.5			2.0-2.25			0.75-1*			1.5-1.75	***************************************
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/Ng)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)														-							
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.0584		0.0292	< 0.368		0.184	< 0.0354		0.0177	< 0.195		0.0975
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.0584		0.0292	< 0.368		0.184	< 0.0354		0.0177	< 0.195		0.0975
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.0584		0.0292	< 0.368		0.184	< 0.0354		0.0177	< 0.195		0.0975
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	0.0356			3.54	J		0.139	J		0.704	J	
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	0.0356			3.54			0.139			0.704		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	< 0.502		0.251	1.01			0.523	J-		3.89	J-	
Arsenic	20	20	20	20	50	50	500	16.7	6.97	2.46			8.33			3.94			8.8		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	15.1			281			41.8	J+		162	J+	
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	0.245			0.409			0.583			0.446		
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	0.267			4.91			1.14			8.48		
Chromium	100	100	200	200	200	200	2,000	129	27.3	6.18			25.4			10.4	J-		30.8	J-	
Lead	200	200	600	600	600	600	6,000	4,290	671	17			417			133	J+		581	J+	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	4.81			245			9.58			60.3		
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	< 0.502		0.251	< 0.607		0.3035	< 0.529		0.2645	< 0.594		0.297
Silver	100	100	200	200	200	200	2,000	6.52	0.830	< 0.502		0.251	1.01			< 0.529		0.2645	< 0.594		0.297
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	7.68	J-		19.3	J-		14.3			16.3		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	71.9			12800			242			1510		
Mercury	20	20	30	30	30	30	300	2.74	0.815	0.0406	J+		0.699	J+		0.262	J+		1.61	J+	

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175 & 189 Intervale Street, Quincy, MA

			MCD Meth	h a d 4/2 Cail	Ctou doudo			Maximum			WCCS-5			WCCS-5			WCCS-6			WCCS-6	
Analysis			MCP Metr	hod 1/3 Soil	Standards			Detected	Exposure Point		5/12/2014			5/12/2014			5/12/2014			5/12/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	Concentrations (mg/Kg)		0.25-0.5			1.5-1.75			1-1.25			2-2.25	411111111111111111111111111111111111111
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/Ng)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.0363		0.01815	< 0.382		0.191	< 0.0353		0.01765	< 0.0354		0.0177
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.0363		0.01815	< 0.382		0.191	< 0.0353		0.01765	< 0.0354		0.0177
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.0363		0.01815	1.69	J		< 0.0353		0.01765	< 0.0354		0.0177
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	0.0329			< 0.382		0.191	0.0445			0.136	J	
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	0.0329			1.69			0.0445			0.136		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	< 0.551		0.2755	3.6	J-		0.462	J-		0.511	J-	
Arsenic	20	20	20	20	50	50	500	16.7	6.97	3.28			9.24			4.71			4.2		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	16.9	J+		127	J+		29.7	J+		20.9	J+	
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	0.327			0.842			0.585			0.551		
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	0.399			6.2			0.384			0.218		
Chromium	100	100	200	200	200	200	2,000	129	27.3	10.2	J-		23.4	J-		9.6	J-		7.96	J-	
Lead	200	200	600	600	600	600	6,000	4,290	671	28.6	J+		611	J+		28.5	J+		34.4	J+	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	6.64			46.1			10.1			8.31		
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	< 0.551		0.2755	< 0.564		0.282	< 0.497		0.2485	< 0.519		0.2595
Silver	100	100	200	200	200	200	2,000	6.52	0.830	< 0.551		0.2755	0.574			< 0.497		0.2485	< 0.519		0.2595
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	10.3			32.7			17			13.6		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	113			1210			94.2			64.8		
Mercury	20	20	30	30	30	30	300	2.74	0.815	0.0341	J+		2.74			0.0386	J+		0.0254		

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175 & 189 Intervale Street, Quincy, MA

			MCD Med	nod 1/3 Soil	Ctondordo			Maximum	<u> </u>		WCCS-7			WCCS-7			WCCS-8			WCCS-8	
Anglistae			WICP Well	100 1/3 3011	Standards			Detected	Exposure Point Concentrations		5/12/2014			5/12/2014			5/12/2014			5/12/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		0.75-1			1.25-1.5			0.33-0.66			1.25-1.5	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(1119/119)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.0367		0.01835	< 0.342		0.171	< 0.184		0.092	< 0.179		0.0895
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.0367		0.01835	< 0.342		0.171	< 0.184		0.092	< 0.179		0.0895
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	0.0181	J		< 0.342		0.171	< 0.184		0.092	< 0.179		0.0895
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	< 0.0367		0.01835	1.78	J		0.474			0.533	J	
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	0.0181			1.78			0.474			0.533		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	< 0.512		0.256	3.08	J-		1.59	J-		0.675	J-	
Arsenic	20	20	20	20	50	50	500	16.7	6.97	4.22			6.91			5.17			4.63		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	21.6	J+		82.1	J+		42.9	J+		96.7	J+	
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	0.34			0.516			0.368			0.316		
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	0.456			2.17			0.991			0.825		
Chromium	100	100	200	200	200	200	2,000	129	27.3	9.38	J-		67.9	J-		16.1	J-		7.71	J-	
Lead	200	200	600	600	600	600	6,000	4,290	671	24.8	J+		608	J+		179	J+		272	J+	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	8.36			90.6			14.5			9.44		
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	< 0.512		0.256	< 0.5		0.25	< 0.588		0.294	< 0.524		0.262
Silver	100	100	200	200	200	200	2,000	6.52	0.830	< 0.512		0.256	< 0.5		0.25	< 0.588		0.294	< 0.524		0.262
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	13.8			19.9			17.7			15		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	86.7			469			223			359		
Mercury	20	20	30	30	30	30	300	2.74	0.815	0.0497			1.22			0.365	J+		0.127	J+	

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175 & 189 Intervale Street, Quincy, MA

			MCP Met	hod 1/3 Soil	Standards			Maximum	Function Deint		WCCS-9			WCCS-9			WCCS-10			WCCS-10	)
Analytes			WOT WEL	1/3 0011	Otanidards			Detected	Exposure Point Concentrations		5/12/2014			5/12/2014			5/12/2014			5/12/2014	ł
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		0.5-0.75			1-1.25			0.5-0.75			2.5-3*	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(9/1.19/	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.0372		0.0186	< 0.192		0.096	< 0.713		NC	< 0.0657	UJ	0.03285
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.0372		0.0186	< 0.192		0.096	< 0.713		0.3565	< 0.0657	UJ	0.03285
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.0372		0.0186	< 0.192		0.096	< 0.713		0.3565	< 0.0657	UJ	0.03285
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	0.106			0.426			4.22	J		0.555	J	
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	0.106			0.426			4.22			0.555		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	< 0.538		0.269	1.96	J-		5.13	J-		1.76	J-	
Arsenic	20	20	20	20	50	50	500	16.7	6.97	3.57			8.17			10.7			10.3		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	17.6	J+		50	J+		85.2	J+		51.8	J+	
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	0.395			0.855			1.01			0.525		
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	0.175			1.29			4.7			1.09		
Chromium	100	100	200	200	200	200	2,000	129	27.3	9.85	J-		23.9	J-		76.2	J-		14.8	J-	
Lead	200	200	600	600	600	600	6,000	4,290	671	44	J+		261	J+		933	J+		389	J+	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	7.08			26.9		<b></b>	81.4			12.6		
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	< 0.538		0.269	< 0.609		0.3045	0.987			< 0.639		0.3195
Silver	100	100	200	200	200	200	2,000	6.52	0.830	< 0.538		0.269	< 0.609		0.3045	1.64			< 0.639		0.3195
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	12.1			23.9			45.4			20.9		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	56			295			1200			237		
Mercury	20	20	30	30	30	30	300	2.74	0.815	0.0585			0.413	J+		2.27			0.415		

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175 & 189 Intervale Street, Quincy, MA

			MCP Met	hod 1/3 Soil	Standards			Maximum	Funcaura Baint		WCCS-11			WCCS-11			WCCS-12			WCCS-12	
Analytee			WOT WEL	1/3 0011	Otanuarus			Detected	Exposure Point Concentrations		5/12/2014			5/12/2014			5/12/2014			5/12/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		0.75-1*			2.5-3			0.75-1			1-1.25	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/ng)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																		-			
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	0.21	J		< 5.74		NC	< 0.788		NC	< 0.356		0.178
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.172		0.086	< 5.74		NC	2.5	J		0.615	J	
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.172		0.086	< 5.74		2.87	< 0.788		0.394	< 0.356		0.178
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	0.831	J		33.4	J		5.06	J		1.3	J	
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	1.041			33.4			7.56			1.915		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	< 0.51		0.255	0.94			80			54.9		
Arsenic	20	20	20	20	50	50	500	16.7	6.97	4.59			14.3			12.1			6.35		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	29.8			83.3			513			275		
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	1.16			0.595			0.566			0.627		
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	1.23			3.67			12.8			7.45		
Chromium	100	100	200	200	200	200	2,000	129	27.3	7.79			18.4			79.5			27		
Lead	200	200	600	600	600	600	6,000	4,290	671	121	J-		388	J-		4290	J-		2320	J-	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	9.73			19.3			75.1			24.1		
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	< 0.51		0.255	0.712			3.75			1.24		
Silver	100	100	200	200	200	200	2,000	6.52	0.830	< 0.51		0.255	0.481			6.52			2.82		
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	6.95			27.8			39.9			15.4		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	261			564			5550			2740		
Mercury	20	20	30	30	30	30	300	2.74	0.815	0.21	J+		2.17			2.62			2		

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175 & 189 Intervale Street, Quincy, MA

			MCD Met	hod 1/3 Soil	Standards			Maximum	Farman Daint		WCCS-13			WCCS-13			WCCS-14			WCCS-15	
Analytos			WOI WE	1100 1/3 0011	Otanuarus			Detected	Exposure Point Concentrations		5/12/2014			5/12/2014			7/30/2014			7/30/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		0-0.25			0.5-0.75			0-0.25*			2-3	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(1119/119)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 3.37		NC	< 4.11		NC	< 0.0362		0.0181	< 0.0354		0.0177
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 3.37		1.685	< 4.11		2.055	< 0.0362		0.0181	< 0.0354		0.0177
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 3.37		1.685	< 4.11		2.055	< 0.0362		0.0181	< 0.0354		0.0177
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	8.99			9.26			0.134			0.0433		
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	8.99			9.26			0.134			0.0433		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27	41.1			13.1								
Arsenic	20	20	20	20	50	50	500	16.7	6.97	15.5			9.88								
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107	268			87								
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533	0.561			0.615								
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62	9.29			13.5								
Chromium	100	100	200	200	200	200	2,000	129	27.3	129			36.1								
Lead	200	200	600	600	600	600	6,000	4,290	671	2890	J-		1140	J-							
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7	96.6			90.9								
Selenium	400	400	700	700	700	700	7,000	3.75	0.643	2.06			1.53								
Silver	100	100	200	200	200	200	2,000	6.52	0.830	2.08			1.07								
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9	34.9			24.1								
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329	2760			1330								
Mercury	20	20	30	30	30	30	300	2.74	0.815	1.52			0.868								

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175 & 189 Intervale Street, Quincy, MA

			MCD Moti	nod 1/3 Soil	Standarda			Maximum			WCCS-16			WCCS-17			WCCS-18			WCCS-19	
Anglyton			WICE WELL	100 1/3 3011	Statiualus			Detected	Exposure Point Concentrations		7/30/2014			7/30/2014			7/30/2014			7/30/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		0.25-0.5			2-3			2-3			2-3	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(1119/119)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.698		NC	< 0.0358		0.0179	< 0.0372		0.0186	< 0.0354		0.0177
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.698		0.349	< 0.0358		0.0179	< 0.0372		0.0186	< 0.0354		0.0177
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.698		0.349	< 0.0358		0.0179	< 0.0372		0.0186	< 0.0354		0.0177
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	10.7			0.0832			0.0246			0.13		
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	10.7			0.0832			0.0246			0.13		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27												
Arsenic	20	20	20	20	50	50	500	16.7	6.97												
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107												
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533												
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62												
Chromium	100	100	200	200	200	200	2,000	129	27.3												
Lead	200	200	600	600	600	600	6,000	4,290	671												
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7												
Selenium	400	400	700	700	700	700	7,000	3.75	0.643												
Silver	100	100	200	200	200	200	2,000	6.52	0.830												
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9												
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329												
Mercury	20	20	30	30	30	30	300	2.74	0.815												

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175 & 189 Intervale Street, Quincy, MA

			MCD Meth	h a d 4/2 Cail	Ctoudoudo			Maximum			WCCS-20			WCCS-21			WCCS-22			WCCS-23	
Amalutas			IVICP IVIELI	hod 1/3 Soil	Standards			Detected	Exposure Point		7/30/2014			7/30/2014			7/30/2014			7/30/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	Concentrations (mg/Kg)		2-3			2-3			2-3			2-3	***************************************
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/Ng)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	0.210	0.0639	< 0.0345		0.01725	< 0.0356		0.0178	< 0.035		0.0175	< 0.0337		0.01685
Aroclor-1248	1	1	4	4	4	4	100	2.50	0.281	< 0.0345		0.01725	< 0.0356		0.0178	< 0.035		0.0175	< 0.0337		0.01685
Aroclor-1254	1	1	4	4	4	4	100	4.53	0.44	< 0.0345		0.01725	< 0.0356		0.0178	< 0.035		0.0175	< 0.0337		0.01685
Aroclor-1260	1	1	4	4	4	4	100	33.4	2.39	0.0449			0.0597			0.036			0.0217		
Total PCBs	1	1	4	4	4	4	100	33.4	2.71	0.0449	-		0.0597			0.036			0.0217		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	80.0	9.27												
Arsenic	20	20	20	20	50	50	500	16.7	6.97												
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	513	107												
Beryllium	90	90	200	200	200	200	2,000	1.16	0.533												
Cadmium	70	70	60	60	60	60	1,000	13.5	3.62												
Chromium	100	100	200	200	200	200	2,000	129	27.3												
Lead	200	200	600	600	600	600	6,000	4,290	671												
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	1,350	89.7												
Selenium	400	400	700	700	700	700	7,000	3.75	0.643												
Silver	100	100	200	200	200	200	2,000	6.52	0.830												
Vanadium	400	400	40	40	50	50	7,000	45.4	18.9												
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,800	1,329												
Mercury	20	20	30	30	30	30	300	2.74	0.815												

### Notes:

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Exposure Point Concentrations (EPCs) that exceed any of the applicable MCP Method 1 soil standards are shaded in yellow.

175 &189 Intervale Street, Quincy, MA

			MCD Mot	hod 1/3 Soil	Standards			Maximum	France avera Daint		WCCS-1			WCCS-1			WCCS-2	
Analytes			WICH WIEL	1100 1/3 0011	Otanuarus		_	Detected	Exposure Point Concentrations		5/12/2014			7/31/2014			5/12/2014	
Allalytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		5-5.5			8.5-9.5			4-4.5	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/Ng/	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																		
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.176		0.088				< 0.917		0.4585
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	0.75	J					6.56		
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	< 0.176		0.088				< 0.917		0.4585
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	0.75					<b></b>	6.56		
Metals (mg/kg)																		
Antimony	20	20	30	30	30	30	300	24.5	4.32	1.12			< 0.53	UJ	0.265	20		
Arsenic	20	20	20	20	50	50	500	65.3	11.3	6.03			1.97			21.3		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215	145			8.08			695		
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494	0.471			0.243			0.532		
Cadmium	70	70	60	60	60	60	1,000	88.4	11.7	3.57			< 0.212		0.106	24.8		
Chromium	100	100	200	200	200	200	2,000	151	30.9	25.3			7.18			116		
Lead	200	200	600	600	600	600	6,000	3,480	584	353			4.28			2290		
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8	43.8			7.29			156		
Selenium	400	400	700	700	700	700	7,000	2.14	0.600	< 0.57		0.285	< 0.53		0.265	2.14		
Silver	100	100	200	200	200	200	2,000	2.73	0.810	0.275			< 0.53		0.265	2.4		
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1	12.8	J-		13.1			33.8	J-	
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694	878			23.9	J-		3370		
Mercury	20	20	30	30	30	30	300	12.2	1.73	0.553	J+		< 0.107		0.0535	12.2	J+	

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175 &189 Intervale Street, Quincy, MA

			MCD Mot	hod 1/3 Soil	l Standards			Maximum	5 5		WCCS-2			WCCS-3			WCCS-3			WCCS-4	
Analytes			IVICE IVIEL	1100 1/3 3011	Standards			Detected	Exposure Point Concentrations		7/31/2014			5/12/2014			7/31/2014			5/12/2014	
Allalytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		8.5-9.5			4.5-5			9-10			4-4.5	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(9/1.19/	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.0439		0.02195	1.04			< 0.0679		0.03395	< 0.743		0.3715
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	< 0.0439		0.02195	17.4			< 0.0679		0.03395	5.01	J	
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	< 0.0439		0.02195	< 1.88		0.94	< 0.0679		0.03395	< 0.743		0.3715
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	ND			18.44			ND			5.01		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	24.5	4.32	< 0.675	UJ	0.3375	15.3			< 1.02	UJ	0.51	2.54		
Arsenic	20	20	20	20	50	50	500	65.3	11.3	1.22			18.1			2.05			11.5		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215	20.9			716			30.6			425		
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494	0.647			0.378			1.08			0.59		
Cadmium	70	70	60	60	60	60	1,000	88.4	11.7	0.0716			34.3			0.119			7.42		
Chromium	100	100	200	200	200	200	2,000	151	30.9	5.56			56.6			5.18			32.3		
Lead	200	200	600	600	600	600	6,000	3,480	584	16.5			2520			11.4			800		
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8	3.44			180			2.27			49.3		
Selenium	400	400	700	700	700	700	7,000	2.14	0.600	< 0.675		0.3375	1.86			1.03			0.84		
Silver	100	100	200	200	200	200	2,000	2.73	0.810	< 0.675		0.3375	2.73			< 1.02		0.51	1.48		
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1	10.4			34.7	J-		6.73			26	J-	
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694	15.4	J-		11000			13.8	J-		1100		
Mercury	20	20	30	30	30	30	300	12.2	1.73	0.0381			11.8	J+		0.0645			1.71	J+	

### Notes:

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175 &189 Intervale Street, Quincy, MA

			MCD Mot	hod 1/3 Soil	I Standards			Maximum	5 5		WCCS-4			WCCS-5			WCCS-5			WCCS-6	
Analytes			IVICE IVIEL	1100 1/3 3011	i Statiualus			Detected	Exposure Point Concentrations		7/31/2014			5/12/2014			7/31/2014			5/12/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		7.5-8.5			4-4.5*			5-5.5			4.5-5	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(9/1.19/	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.036		0.018	< 0.41		0.205	< 0.0394		0.0197	< 2.2		NC
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	< 0.036		0.018	< 0.41		0.205	< 0.0394		0.0197	5.19	J	
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	< 0.036		0.018	< 0.41		0.205	0.0671			< 2.2		1.1
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	ND			ND	<b></b>		0.0671			5.19		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	24.5	4.32	< 0.558	UJ	0.279	2.63	J-		0.697			24.5	J-	
Arsenic	20	20	20	20	50	50	500	65.3	11.3	3.68			8.69			5.67			18.6		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215	8.9			73.4	J+		39.9			817	J+	
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494	0.367			0.569			0.3			0.587		
Cadmium	70	70	60	60	60	60	1,000	88.4	11.7	0.0737			4.16			1.67			50.6		
Chromium	100	100	200	200	200	200	2,000	151	30.9	0.315			34.4	J-		9.32			71.1	J-	
Lead	200	200	600	600	600	600	6,000	3,480	584	23.8			197	J+		137			3480	J+	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8	0.757			35.2			15.4			175		
Selenium	400	400	700	700	700	700	7,000	2.14	0.600	< 0.558		0.279	< 0.584		0.292	< 0.532		0.266	1.09		
Silver	100	100	200	200	200	200	2,000	2.73	0.810	< 0.558		0.279	< 0.584		0.292	< 0.532		0.266	1.58		
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1	0.528			16.3	<b></b>		7.88			37.4		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694	34.7	J-		931			346			12500		
Mercury	20	20	30	30	30	30	300	12.2	1.73	< 0.112		0.056	0.284	J+		0.494			7.87		

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175 &189 Intervale Street, Quincy, MA

			MCD Mot	hod 1/3 Soil	Standards			Maximum	Farma arma Baint		WCCS-6			WCCS-7			WCCS-7			WCCS-8	
Analytes			WICH WIEL	1100 1/3 3011	Otanuarus			Detected	Exposure Point Concentrations		7/31/2014			5/12/2014			7/31/2014			5/12/2014	
Allalytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		9-10			4-4.5			5-5.5			3.75-4.25	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(9/1.19/	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.0465		0.02325	< 0.0437		0.02185	< 0.0821		0.04105	< 0.0454	UJ	0.0227
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	< 0.0465		0.02325	0.0498			0.482	J		< 0.0454	UJ	0.0227
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	< 0.0465		0.02325	< 0.0437		0.02185	< 0.0821		0.04105	< 0.0454	UJ	0.0227
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	ND			0.0498			0.482			ND		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	24.5	4.32	< 0.689		0.3445	3.78	J-		0.738	J-		4.72	J-	
Arsenic	20	20	20	20	50	50	500	65.3	11.3	65.3			11.2			3.62			14.5		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215	21.7			44.4	J+		43			68.4	J+	
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494	0.372			0.409			0.381			0.47		
Cadmium	70	70	60	60	60	60	1,000	88.4	11.7	0.152			36.1			3.44			0.359		
Chromium	100	100	200	200	200	200	2,000	151	30.9	5.81			29.1	J-		37.1			42.5	J-	
Lead	200	200	600	600	600	600	6,000	3,480	584	17.8			44.2	J+		125			64.6	J+	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8	4.5			28.7			62			49.8		
Selenium	400	400	700	700	700	700	7,000	2.14	0.600	0.732			< 0.705		0.3525	< 0.639		0.3195	< 0.717		0.3585
Silver	100	100	200	200	200	200	2,000	2.73	0.810	< 0.689		0.3445	< 0.705		0.3525	< 0.639		0.3195	< 3.59		1.795
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1	12.2			15.4			13.6			15.5		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694	22.3			45.2			223	J-		83.5		
Mercury	20	20	30	30	30	30	300	12.2	1.73	0.0383			< 0.135		0.0675	0.328			0.102	J+	

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175 &189 Intervale Street, Quincy, MA

			MCD Mot	hod 1/3 Soil	l Standards			Maximum	Farma arma Baint		WCCS-9			WCCS-11			WCCS-12			WCCS-13	
Analytes			WICE WIEL	1100 1/3 3011	Januarus			Detected	Exposure Point Concentrations		5/12/2014			7/31/2014			5/12/2014			5/12/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		3.5-4			6.75-7.75*	•		3.5-4			3-3.5	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(9/1.19/	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.216		0.108	< 0.0443		0.02215	< 0.18		0.09	< 0.342		0.171
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	< 0.216		0.108	< 0.0443	<b></b>	0.02215	< 0.18		0.09	< 0.342		0.171
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	0.175			0.0795			0.523	J		1.53	J	
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	0.175			0.0795			0.523			1.53		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	24.5	4.32	3.91	J-					0.591			1.78		
Arsenic	20	20	20	20	50	50	500	65.3	11.3	11.9				<b></b>		6.85			4.54		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215	77.3	J+					97.6			72.4		
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494	0.543				<b></b>		0.431			0.334		
Cadmium	70	70	60	60	60	60	1,000	88.4	11.7	3.26				<b></b>		3.16			4		
Chromium	100	100	200	200	200	200	2,000	151	30.9	33	J-					8.5			15.1		
Lead	200	200	600	600	600	600	6,000	3,480	584	140	J+					196	J-		160	J-	
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8	29.5						20.2			19.2		
Selenium	400	400	700	700	700	700	7,000	2.14	0.600	< 0.696		0.348				< 0.556		0.278	0.509		
Silver	100	100	200	200	200	200	2,000	2.73	0.810	1.23						0.521			0.337		
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1	24.9						16.5			19.8		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694	524						908			824		
Mercury	20	20	30	30	30	30	300	12.2	1.73	0.28						1.21			0.558		

### Notes:

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175 &189 Intervale Street, Quincy, MA

			MCD Mat	h a d 4/2 C a il	l Ctomploydo			Maximum			WCCS-13			WCCS-14			WCCS-14			WCCS-15	
Analytee			MICP Met	noa 1/3 <b>3</b> 011	I Standards			Detected	Exposure Point		7/31/2014			7/30/2014			7/30/2014			7/30/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	Concentrations (mg/Kg)		5.5-6.5			3-4			6-7			10-11	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/rxg)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.0379		0.01895	< 0.0347		0.01735	< 0.0393		0.01965	< 0.0471		0.02355
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	< 0.0379		0.01895	< 0.0347		0.01735	< 0.0393		0.01965	< 0.0471		0.02355
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	0.154			0.0604	J		0.0254			< 0.0471		0.02355
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	0.154			0.0604			0.0254			ND		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	24.5	4.32												
Arsenic	20	20	20	20	50	50	500	65.3	11.3												
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215												
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494												
Cadmium	70	70	60	60	60	60	1,000	88. <b>4</b>	11.7												
Chromium	100	100	200	200	200	200	2,000	151	30.9												
Lead	200	200	600	600	600	600	6,000	3,480	584												
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8												
Selenium	400	400	700	700	700	700	7,000	2.14	0.600												
Silver	100	100	200	200	200	200	2,000	2.73	0.810												
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1												
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694												
Mercury	20	20	30	30	30	30	300	12.2	1.73												

### Notes:

mg/kg = Milligrams per kilogram.

ft bgs = Feet below ground surface.

NA = No standard available.

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To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

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175 &189 Intervale Street, Quincy, MA

			MCD Mat	hod 1/3 Soil	l Standards			Maximum	Farma arma Baixi		WCCS-16			WCCS-17			WCCS-18			WCCS-19	
Analytes			IVICE IVIEL	1100 1/3 3011	i Statiuarus			Detected	Exposure Point Concentrations		7/30/2014			7/30/2014			7/30/2014			7/30/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	(mg/Kg)		6.75-7.75			9-10			9-10			6-7	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(9/1.19/	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.0525		0.02625	< 0.0407		0.02035	< 0.0372		0.0186	< 0.0431		0.02155
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	< 0.0525		0.02625	< 0.0407		0.02035	< 0.0372		0.0186	< 0.0431		0.02155
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	< 0.0525		0.02625	0.0704	J		0.133	J	<b></b>	< 0.0431		0.02155
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	ND			0.0704		<b></b>	0.133			ND		
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	24.5	4.32												
Arsenic	20	20	20	20	50	50	500	65.3	11.3												
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215									<b></b>			
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494												
Cadmium	70	70	60	60	60	60	1,000	88.4	11.7												
Chromium	100	100	200	200	200	200	2,000	151	30.9						<b></b>						
Lead	200	200	600	600	600	600	6,000	3,480	584												
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8									<b></b>			
Selenium	400	400	700	700	700	700	7,000	2.14	0.600												
Silver	100	100	200	200	200	200	2,000	2.73	0.810												
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1												
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694												
Mercury	20	20	30	30	30	30	300	12.2	1.73												

### Notes:

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To calculate EPCs for results reported as non-detect, one-half of the RL was used as the representative concentration unless the RL exceeds two times the maximum detected concentration (indicated by "NC").

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175 &189 Intervale Street, Quincy, MA

			MCD Mad	thod 1/3 Soil	I Standarda			Maximum	5 5		WCCS-20			WCCS-20			WCCS-21			WCCS-22	
Analytos			WICE Me	u 1/3 301	- Standards			Detected	Exposure Point		7/30/2014			7/30/2014			7/30/2014			7/30/2014	
Analytes	S-1 &	S-1 &	S-2 &	S-2 &	S-3 &	S-3 &	UCL	Concentration	Concentrations (mg/Kg)		3.5-3.75			6.5-7.5			3.5-3.75			4-4.25	
	GW-2	GW-3	GW-2	GW-3	GW-2	GW-3	UCL	(mg/Kg)	(mg/Ng)	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL	Result	Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)																					
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106				< 0.0356		0.0178						
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26				< 0.0356		0.0178						
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218				< 0.0356		0.0178						
Total PCBs	1	1	4	4	4	4	100	18.4	2.19				ND								
Metals (mg/kg)																					
Antimony	20	20	30	30	30	30	300	24.5	4.32	< 0.576	UJ	0.288	< 0.55	UJ	0.275	< 0.536	UJ	0.268	14.1	J-	
Arsenic	20	20	20	20	50	50	500	65.3	11.3	5.09			3.77			4.93			28		
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215	38.5			26.3			43.6			1390		
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494	0.464			0.271			0.685			0.252		
Cadmium	70	70	60	60	60	60	1,000	88.4	11.7	1.4			0.033			0.562			88.4		
Chromium	100	100	200	200	200	200	2,000	151	30.9	9.87			0.497			6.83			151		
Lead	200	200	600	600	600	600	6,000	3,480	584	111			18.4			213			2490		
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8	16.2			0.51			13.4			274		
Selenium	400	400	700	700	700	700	7,000	2.14	0.600	< 0.576		0.288	< 0.55		0.275	< 0.536		0.268	0.817		
Silver	100	100	200	200	200	200	2,000	2.73	0.810	< 0.576		0.288	< 0.55		0.275	< 0.536		0.268	2.13		
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1	11.1			2.6			10.7			17.9		
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694	196	J-		47.6	J-		251	J-		5590	J-	
Mercury	20	20	30	30	30	30	300	12.2	1.73	0.169			< 0.102		0.051	0.0928			1.66		

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175 &189 Intervale Street, Quincy, MA

Analytea			MCP Met	hod 1/3 Soil	Standards			Maximum Detected	Exposure Point Concentrations		WCCS-22 7/30/2014			WCCS-23 7/30/2014	
Analytes	S-1 & GW-2	S-1 & GW-3	S-2 & GW-2	S-2 & GW-3	S-3 & GW-2	S-3 & GW-3	UCL	Concentration (mg/Kg)	(mg/Kg)	Result	10-11 Qual.	1/2 RL	Result	10.5-11.5 Qual.	1/2 RL
Polychlorinated Biphenyls (mg/kg)	J.1. Z	511.0	5.17 E	5.1.0	OH E	0		( 0 0)		Nesuit	Quai.	1/2 IXL	Nesuit	Quai.	1/2 IXL
Aroclor-1242	1	1	4	4	4	4	100	1.04	0.106	< 0.0471		0.02355	< 0.0345		0.01725
Aroclor-1254	1	1	4	4	4	4	100	17.4	1.26	< 0.0471		0.02355	< 0.0345		0.01725
Aroclor-1260	1	1	4	4	4	4	100	1.53	0.218	< 0.0471		0.02355	0.046		
Total PCBs	1	1	4	4	4	4	100	18.4	2.19	ND			0.046		
Metals (mg/kg)															
Antimony	20	20	30	30	30	30	300	24.5	4.32	< 0.718	UJ	0.359			
Arsenic	20	20	20	20	50	50	500	65.3	11.3	1.48					
Barium	1,000	1,000	3,000	3,000	5,000	5,000	10,000	1,390	215	36.8					
Beryllium	90	90	200	200	200	200	2,000	1.08	0.494	0.992					
Cadmium	70	70	60	60	60	60	1,000	88. <b>4</b>	11.7	0.194					
Chromium	100	100	200	200	200	200	2,000	151	30.9	7.92					
Lead	200	200	600	600	600	600	6,000	3,480	584	13.5					
Nickel	600	600	1,000	1,000	1,000	1,000	10,000	274	51.8	4.76					
Selenium	400	400	700	700	700	700	7,000	2.14	0.600	0.577					
Silver	100	100	200	200	200	200	2,000	2.73	0.810	< 0.718		0.359			
Vanadium	400	400	40	40	50	50	7,000	37.4	16.1	11.6					
Zinc	1,000	1,000	3,000	3,000	5,000	5,000	10,000	12,500	1,694	29.4	J-				
Mercury	20	20	30	30	30	30	300	12.2	1.73	0.0268					

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Table 2
Summary of Groundwater Gauging and Elevation Data

175 & 189 Intervale Street, Quincy, Massachusetts

Wall ID	Total Doubh	Caucan Langth	Surface	NAD	MP	October	2013	January 31	., 2014
Well ID	Total Depth	Screen Length	Construction	MP	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
WCMW-1	14.0	10.0	Steel Standpipe	PVCP	43.5	9.7	33.8	8.14	35.36
WCMW-2	22.0	15.0	Flush mounted	PVCP	42.4	8.06	34.34	6.72	35.68
WCMW-3	14.0	10.0	Flush mounted	PVCP	40.9	7.02	33.88	5.61	35.29
WCMW-4	12.0	10.0	Steel Standpipe	PVCP	43.7	9.62	34.08	7.93	35.77
WCMW-5	24.0	15.0	Steel Standpipe	PVCP	43.1	11.56	31.54	9.94	33.16
WCMW-6	16.0	10.0	Steel Standpipe	PVCP	43.0	8.50	34.5	7.14	35.86
WCMW-7	24.0	15.0	Flush mounted	PVCP	40.8	8.77	32.03	7.16	33.64
WCMW-8	12.0	10.0	Steel Standpipe	GS	40.3	9.75	34.3	4.80	35.50
WCMW-9	12.0	10.0	Flush mounted	PVCP	40.5	6.19	34.31	4.82	35.68
WCMW-10	12.0	10.0	Steel Standpipe	PVCP	44.5	10.10	34.4	8.74	35.76
WCMW-11	16.0	10.0	Steel Standpipe	PVCP	40.8	7.20	33.6	5.02	35.78
MW-1R	16.0	10.0	Flush mounted	PVCP	42.7	8.81	33.89	7.10	35.60
MW-2R	14.0	10.0	Flush mounted	PVCP	40.4	6.92	33.48	4.60	35.80
MW-3R	14.0	10.0	Flush mounted	PVCP	40.4	6.08	34.32	4.70	35.70
MW-4R	14.0	10.0	Flush mounted	PVCP	40.1	5.75	34.35	4.39	35.71

#### Notes:

All measurements in feet

MP - Monitoring Point

GS = Ground Surface

PVC = Poly Vinyl Chloride Pipe

Elevation survey completed by DaSilva Survey Associates on January 27, 2014.

WCMW-8 standpipe construction damaged by drill rig before survey occurred. October 2013 groundwater elevation is approximate.

Light Non-Aqueous Phase Liquid was not detected during groundwater gauging events.

### Table 3 Summary of Groundwater Field Parameters

175 & 189 Intervale Street Quincy, Massachusetts

Well ID	Date	Temp.	Spec. Cond. (mS/cm)	DO (mg/L)	рН	ORP (mV)	Turbidity (NTU)
	04/23/13	NM	NM	NM	NM	NM	3.25
MW-1R	10/03/13	16.44	3.764	0.31	6.28	-26.0	2.15
	01/27/14	10.00	3.136	0.34	6.41	-108.6	0.95
MW-2R	10/03/13	18.30	5.834	0.06	6.89	-84.2	2.23
IVIVV-ZR	01/27/14	7.30	1.545	0.55	6.51	21.5	2.45
	04/23/13	NM	NM	NM	NM	NM	2.84
MW-3R	10/04/13	18.64	3.037	0.19	6.50	-45.8	3.14
	01/27/14	7.40	1.554	3.10	6.76	24.7	2.70
	04/23/13	NM	NM	NM	NM	NM	5.19
MW-4R	10/04/13	19.65	3.407	0.06	6.43	-91.6	4.11
	01/27/14	9.90	3.151	0.08	6.77	-97.9	4.40
	10/03/13	17.87	2.737	0.16	6.76	-55.9	3.17
WCMW-1	01/27/14	7.40	1.846	4.18	6.24	171.4	5.12
	01/31/14	7.20	1.130	6.42	6.22	56.1	3.33
WCMW-2	10/03/13	18.02	5.961	0.10	6.77	-53.0	8.48
VVCIVIVV-Z	01/27/14	9.20	5.733	0.07	6.84	-50.8	4.81
WCMW-3	10/04/13	17.23	3.211	0.08	6.97	-78.3	18.6
VVCIVIVV-3	01/27/14	8.40	0.766	0.19	6.27	81.0	42.4
WCMW-4	10/03/13	17.48	2.866	0.11	6.69	-38.0	4.41
VVCIVIVV-4	01/27/14	6.00	0.669	4.58	6.31	44.1	0.56
VA/CNAVA/ E	10/03/13	17.47	3.889	0.10	6.30	-6.9	40.7
WCMW-5	01/27/14	11.90	3.067	0.01	6.13	-16.6	3.29
WCMW-6	10/03/13	17.17	5.783	0.07	6.45	-57.6	9.22
VVCIVIVV-0	01/27/14	9.60	1.819	0.67	6.56	-32.1	5.27
WCMW-7	10/03/13	16.19	3.062	0.07	6.27	-15.6	26.8
VVCIVIVV-7	01/27/14	11.80	2.792	0.01	6.30	-32.2	5.21
WCMW-8	10/03/13	17.51	3.473	0.07	6.53	-45.1	5.21
VVCIVIVV-0	01/28/14	6.50	0.746	0.02	6.13	49.9	7.22
WCMW-9	10/03/13	20.10	5.601	0.10	6.73	-95.5	4.34
VVCIVIVV-9	01/27/14	8.30	2.673	0.01	6.73	-42.3	1.55
MOMM 40	10/03/13	17.63	6.240	0.23	6.35	-51.1	4.3
WCMW-10	01/28/14	6.00	1.485	0.11	6.79	-37.6	2.33
VAICAVAL 4.4	10/03/13	17.08	3.919	0.07	6.32	-63.3	74.5
WCMW-11	01/27/14	8.40	1.255	3.72	6.75	-2.2	5.79

#### Notes:

NM = Not measured

ft. bpvc = feet below PVC riser

DO = dissolved oxygen

ORP = oxidation-reduction potential

NTU = Nephelometric Turbidity Units

mV = millivolts

mg/L = miligrams per liter

(mS/cm) = millisiemens per centimeter

°C = degrees celcius

### Table 4 Summary of Groundwater Analytical Results

175 & 189 Intervale Street Quincy, Massachusetts

Well ID	MW-1		MW-1R		MW-2	MV	V-2R	MW-3		MW-3R		MW-4		MW-4R			WC	MW-1		WCI	MW-2
Sample Date	4/12/89	4/23/13	10/3/13	1/27/14	4/12/89	10/3/13	1/27/14	4/12/89	4/23/13*	10/4/13	1/27/14	4/12/89	4/23/13	10/4/13	1/27/14	10/3/13	1/27/14	1/31/14	1/31/14	10/3/13	1/27/14
Volatile Organic Compounds (VOCs)	4/12/03	4/20/10	10/3/13	1/2//17	4/12/03	10/3/13	1/2//17	4/12/03	4/20/10	10/4/13	1/2//17	7/12/03	4/23/13	10/4/10	1/21/17	10/3/13	1/21/17	1/31/14	1/51/14	10/3/13	1/21/14
1.2.4-Trimethylbenzene		< 1	< 10	< 5		< 10	< 5		< 1	< 10	< 5		3	< 10	< 5	< 10	< 1			< 10	< 5
1.3-Dichlorobenzene	< 2	<1	< 10	< 5	14	< 10	< 5	< 1	<1	< 10	< 5	< 1	<1	< 10	<del></del>	< 10	< 1			11.3	8.32
1.4-Dichlorobenzene	< 2	< 1	< 10	<u> </u>	84	< 10	< 5	< 1	< 1	< 10	<u> </u>	<1	< 1	< 10	<u> </u>	< 10	< 1	<u></u>		< 10	< 5
Benzene	< 2	< 1	< 10	<u> </u>	< 5	< 10	<u> </u>	< 1	<1	< 10	< 5	1	2.9	< 10	<u> </u>	< 10	< 1			< 10	<u> </u>
Chlorobenzene	< 2	<1	< 10	<u> </u>	12	< 10	<u> </u>	< 1	<1	< 10	< 5	< 1	< 1	< 10	<u> </u>	< 10	<1			< 10	<u> </u>
Chloroform	< 2	< 2	< 10	<u> </u>	< 5	< 10	<u> </u>	1	< 2	< 10	< 5	<1	< 2	< 10	<u> </u>	< 10	<1			< 10	<u> </u>
cis-1,2-Dichloroethylene	340	<1	< 10	< 5 < 5	< 5	< 10	4.13	12	5.6	11.7	< 5 < 5	140	<1	< 10	< 5 < 5	< 10	<1			< 10	<u> </u>
Isopropylbenzene (Cumene)		<b>-</b>	< 10	< 5 < 5		< 10	<b>4.13</b> < 5			< 10	< 5 < 5		1.1	< 10	< 5 < 5	< 10	<1			< 10	<u> </u>
	< 2	< 1 < 2	< 20	< 10	33	< 20	< 10	< 1	< 1 < 2	< 20	< 10			< 20	< 10	< 10	< 2			< 20	< 10
m+p Xylene					< 50							< 1 < 10	< 2 <b>60</b>		20.4					< 20 <b>4.08</b>	2.57
Methyl tert-Butyl Ether (MTBE)	< 20	< 1	< 10 < 50	< 5		< 10 < 50	< 5 <b>14.7</b>	< 10	< 1	< 10 < 50	< 5 < 25		26	35.7 56	44.5	< 10 < 50	< 1				
Naphthalene		< 2		< 25					< 2								< 5			< 50	< 25
o-Xylene	< 2	< 1	< 10	< 5	34	< 10	< 5	< 1	< 1	< 10	< 5	< 1	1.8	< 10	< 5	< 10	< 1			< 10	< 5
tert-Amyl Methyl Ether (TAME)		< 5	< 50	< 25		< 50	< 25		< 5	< 50	< 25		12	7.92	3 70	< 50	< 5			< 50	< 25
Tetrachloroethylene	38	< 1	< 10	< 5	< 5	< 10	4.4	22	18	10.4	7.92	38	< 1	< 10	3.79	< 10	2.32			< 10	< 5
Toluene	< 2	< 1	< 10	< 5	11	< 10	< 5	< 1	< 1	< 10	< 5	< 1	< 1	< 10	<u>&lt; 5</u>	< 10	< 1			< 10	< 5
trans-1,2-Dichloroethylene	4	< 1	< 10	< 5	< 5	< 10	< 5	< 1	< 1	< 10	< 5	< 1	< 1	< 10	<u>&lt; 5</u>	< 10	< 1			< 10	< 5
Trichloroethylene	14	< 1	< 10	< 5	< 5	< 10	< 5	10	5.7	9.7	4.08	28	< 1	< 10	< 5	< 10	0.746			< 10	< 5
Vinyl Chloride	63	< 2	< 10	< 5	< 5	< 10	5.19	< 1	< 2	< 10	< 5	12	< 2	< 10	< 5	< 10	< 1			< 10	< 5
Volatile Petroleum Hydrocarbons (VPH)																					
C5-C8 Aliphatics (adjusted)		< 100	< 50	< 5		< 50	< 5		< 100	< 50	< 5		< 100	< 50	< 25	< 50	< 5			< 50	< 5
C9-C12 Aliphatics (adjusted)		< 100	< 50	< 5		< 50	< 5		100	< 50	< 5		< 100	< 50	< 25	< 50	< 5			< 50	< 5
C9-C10 Aromatics		< 100	< 50	< 5		< 50	3.14		< 100	< 50	< 5		300	99	57.4	24.7	< 5			10	8.04
Extractable Petroleum Hydrocarbons (EPH)																					
C9-C18 Aliphatics		< 100	< 48 UJ	23.6 J-		13.2	56.9 J-		< 100	< 47.6 UJ	19.5 J-		< 100	84.5 J	181 J-	109 J	< 48.9			< 47.5 UJ	< 51.8 UJ
C19-C36 Aliphatics		< 100	24.3 J	< 47.7 UJ		< 47.6	< 47.5 UJ		< 100	< 47.6 UJ	< 47.7 UJ		< 100	< 47.7 UJ	< 47.7 UJ	< 47.7 UJ	< 48.9			19.6 J	< 51.8 UJ
C11-C22 Aromatics (Adjusted)		110	< 50	< 50		< 50	< 50 UJ		130	< 50	< 50		490	313	145 J-	< 50	< 50			< 50	< 50
2-Methylnaphthalene		< 2	< 9.59	< 9.55		< 9.52	< 9.5 UJ		< 2	< 9.52	< 9.53		33	27.1	4.81 J-	< 9.54	< 9.77			< 9.49	< 10.4
Acenaphthene		< 2	< 9.59	< 9.55		8.64	3.27 J-		< 2	< 9.52	< 9.53		87	98.3	26.6 J-	4.94	< 9.77			< 9.49	< 10.4
Fluoranthene		< 2	< 9.59	< 9.55		2.34	< 9.5 UJ		< 2	< 9.52	< 9.53		2.3	3.88	2.12 J-	< 9.54	< 9.77			< 9.49	< 10.4
Fluorene		< 2	< 9.59	< 9.55		6.92	4.28 J-		< 2	< 9.52	< 9.53		29	43.4	22 J-	3.78	< 9.77			< 9.49	< 10.4
Naphthalene		< 2	< 9.59	< 9.55		3.16	< 9.5 UJ		< 2	< 9.52	< 9.53		20	26.4	5.76 J-	3.3	< 9.77			< 9.49	< 10.4
Phenanthrene		< 2	< 9.59	< 9.55		11.3	5.05 J-		< 2	< 9.52	< 9.53		33	47.1	26.5 J-	5.83	< 9.77			< 9.49	< 10.4
Pyrene		< 2	< 9.59	< 9.55		< 9.52	< 9.5 UJ		< 2	< 9.52	< 9.53		< 2	2.05	< 9.53 UJ	< 9.54	< 9.77			< 9.49	< 10.4
Polychlorinated Biphenyls (PCBs)																					
Aroclor-1242																		0.154 J	< 0.233		
Dissolved Metals																					
Antimony		< 1	< 6	< 6		< 6	< 6		1.7	< 6	< 6		< 1	< 6	< 6	< 6	< 6			< 6	26.2
Arsenic		1.7	< 10	< 10		< 10	< 10		1.7 J	6.09	< 10		1.8	< 10	< 10	< 10	< 10			7.74	7.22
Barium		85	157	94.7		248	81		220	146	72		380	396	273	78.9	58.3			152	99.4
Cadmium		< 0.5	< 1	< 1		< 1	< 1		2.1	0.72	2.94		< 0.5	< 1	< 1	< 1	0.94			< 1	0.64
Chromium		< 1	1.46	< 5		1.31	< 5		< 1	1.23	< 5		< 1	1.3	< 5	1.17	< 5			1.63	< 5
Lead		< 1	< 5	< 5		< 5	< 5		1.3	< 5	< 5		< 1	< 5	< 5	< 5	< 5			< 5	4.72
Nickel		6.5	< 10	4.3		3.35	4.55		16	7.21	10.3		5.6	2.3	4.75	6.52	47.7			3.58	5.72
Vanadium		< 5	1.59	1.92		< 10	< 10		< 5	< 10	< 10		< 5	< 10	< 10	< 10	< 10			< 10	< 10
Zinc		< 10	1.71	< 50		2.7	66		470	112	481		< 10	2.56	85.6	4.26	51.4			22.6	57.7
					1			1													

#### Notes:

Only analytes that have been detected at least once among relevant samples are presented.

< = Analyte is not detected; value presented is the laboratory reporting limit (RL).

Detected results are presented in **bold font**.

Concentrations presented in units of micrograms per liter (ug/L).

J = Detected result qualified as estimated. A minus sign ("-") indicates potential low bias.

UJ = Non-detect result qualified as estimated.

Samples of groundwater from WCMW-1 were collected and submitted to a laboratory for PCB analysis using low-flow samples collected.

<sup>\* =</sup> Result presented represents the highest detected concentration between primary and field duplicate samples. If both results are non-detect, the lowest RL is presented.

<sup>\*\* =</sup> Naphthalene was analyzed via more than one analytical method. The highest detected concentration among all methods for each sample is presented. If all results are non-detect, the lowest RL is presented.

### Table 4 Summary of Groundwater Analytical Results

175 & 189 Intervale Street Quincy, Massachusetts

Well ID	WCI	MW-3	WCM	IW A	WCI	MW-5	WC	MW-6	WC	MW-7	WCI	/W-8	WCN	//\/ O	WC	/IW-10	WC	MW-11
1100.00		-				-	_		_		_	1/28/14	_	-	_	-		
Sample Date	10/4/13	1/27/14	10/3/13	1/27/14	10/3/13	1/27/14	10/3/13	1/27/14	10/3/13*	1/27/14*	10/3/13	1/28/14	10/3/13	1/27/14	10/3/13	1/28/14	10/3/13	1/27/14
Volatile Organic Compounds (VOCs)	10	4	40	4	40		40		-		40	4	40	_	40	-	40	
1,2,4-Trimethylbenzene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
1,3-Dichlorobenzene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
1,4-Dichlorobenzene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
Benzene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
Chlorobenzene	< 10	< 1	< 10	< 1	82.4	8	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
Chloroform	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
cis-1,2-Dichloroethylene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	86	109	< 10	2.96	< 10	< 5	< 10	< 5	< 10	< 5
Isopropylbenzene (Cumene)	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
m+p Xylene	< 20	< 2	< 20	< 2	< 20	< 10	< 20	< 10	< 10	< 4	< 20	< 2	< 20	< 10	< 20	< 10	< 20	< 10
Methyl tert-Butyl Ether (MTBE)	3.6	< 1	< 10	< 1	7.93	12	2.14	< 5	< 5	2	< 10	< 1	3.6	< 5	2.9	< 5	< 10	< 5
Naphthalene	< 50	< 5	< 50	< 5	< 50	< 25	< 50	< 25	< 25	< 10	< 50	< 5	< 50	< 25	< 50	< 25	< 50	< 25
o-Xylene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
tert-Amyl Methyl Ether (TAME)	< 50	< 5	< 50	< 5	< 50	< 25	< 50	< 25	< 25	< 10	< 50	< 5	< 50	< 25	< 50	< 25	< 50	< 25
Tetrachloroethylene	< 10	3.5	< 10	1.72	< 10	< 5	< 10	< 5	< 5	< 2	< 10	1.97	< 10	9.61	< 10	< 5	< 10	9.11
Toluene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
trans-1,2-Dichloroethylene	< 10	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	< 2	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
Trichloroethylene	< 10	1.03	< 10	0.479	< 10	< 5	< 10	< 5	23.9	7.53	< 10	2.26	5.33	3.7	< 10	< 5	< 10	< 5
Vinyl Chloride	11.4	< 1	< 10	< 1	< 10	< 5	< 10	< 5	< 5	3.66	< 10	< 1	< 10	< 5	< 10	< 5	< 10	< 5
Volatile Petroleum Hydrocarbons (VPH)									. •	0.00								
C5-C8 Aliphatics (adjusted)	< 50	< 5	< 50	< 5	< 50	< 5	27.5	4.23	< 50	1.93	< 50	< 5	< 50	1.83	< 50	< 5	< 50	< 5
C9-C12 Aliphatics (adjusted)	< 50	< 5	< 50	< 5	< 50	< 5	< 50	< 5	< 50	< 5	< 50	< 5	< 50	< 5	< 50	< 5	< 50	< 5
C9-C10 Aromatics	< 50	< 5	< 50	< 5	9.38	3.58	< 50	0.506	< 50	< 5	< 50	< 5	< 50	1.74	< 50	< 5	< 50	< 5
Extractable Petroleum Hydrocarbons (EPH)	100		\ 00		0.00	0.00	7 00	0.000	100		\ 00		100	1.7 4	\ 00	``	100	
C9-C18 Aliphatics	< 48.8 UJ	13.1 J-	< 47.5 UJ	< 47.8	19.5	10 J-	13.9	15.5 J-	12.9	18.4 J-	< 47.4	17.3	< 47.3 UJ	10.9 J-	10.3	< 47.4 UJ	< 55.2	< 47.3 UJ
C19-C36 Aliphatics	15.3 J	< 47.5 UJ	11.4 J	< 47.8	< 47.9	< 47.7 UJ	< 47.4	< 47.4 UJ	16.5	< 47.3 UJ	< 47.4	< 48	9.61 J	< 47.5 UJ	< 47.4	< 47.4 UJ	15.8	< 47.3 UJ
C11-C22 Aromatics (Adjusted)	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Methylnaphthalene	< 9.75	< 9.51	< 9.5	< 9.56	< 9.57	< 9.55	< 9.47	< 9.47	< 9.45	< 9.46	< 9.49	< 9.59	< 9.47	< 9.5	< 9.48	< 9.48	< 11	< 9.47
Acenaphthene	< 9.75	< 9.51	< 9.5	< 9.56	< 9.57	< 9.55	< 9.47	< 9.47	< 9.45	< 9.46	< 9.49	< 9.59	< 9.47	< 9.5	< 9.48	< 9.48	< 11	< 9.47
Fluoranthene	< 9.75	< 9.51	< 9.5	< 9.56	< 9.57	< 9.55	< 9.47	< 9.47	< 9.45	< 9.46	< 9.49	< 9.59	< 9.47	< 9.5	< 9.48	< 9.48	< 11	< 9.47
Fluorene	< 9.75	< 9.51	< 9.5	< 9.56	< 9.57	< 9.55	< 9.47	< 9.47	< 9.45	< 9.46	< 9.49	< 9.59	< 9.47	< 9.5	< 9.48	< 9.48	< 11	< 9.47
Naphthalene	< 9.75	< 9.51	< 9.5	< 9.56	< 9.57	< 9.55	< 9.47	< 9.47	< 9.45	< 9.46	< 9.49	< 9.59	< 9.47	< 9.5 < 9.5	< 9.48	< 9.48	< 11	< 9.47
•	2.94	< 9.51	< 9.5 < 9.5	< 9.56	2.52	< 9.55	1.89	< 9.47		< 9.46	< 9.49	< 9.59	1.93	< 9.5 < 9.5	< 9.48	< 9.48	< 11	< 9.47 < 9.47
Phenanthrene									< 9.45				1					
Pyrene	< 9.75	< 9.51	< 9.5	< 9.56	< 9.57	< 9.55	< 9.47	< 9.47	< 9.45	< 9.46	< 9.49	< 9.59	< 9.47	< 9.5	< 9.48	< 9.48	< 11	< 9.47
Polychlorinated Biphenyls (PCBs)																		
Aroclor-1242																		
Dissolved Metals			_			_			_		_			_				
Antimony	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6	< 6
Arsenic	5.73	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	6.41	8.15	< 10	< 10	5.63	< 10
Barium	46.3	51.7	75.4	53.7	396	287	399	187	420	304	335	179	337	176	351	153	160	48.4
Cadmium	< 1	0.7	< 1	1.97	< 1	< 1	< 1	6.52	< 1	< 1	< 1	12.2	< 1	1.7	< 1	< 1	< 1	< 1
Chromium	< 5	< 5	1.26	< 5	1.6	< 5	1.61	< 5	1.81	< 5	1.33	< 5	1.6	< 5	1.87	< 5	1.72	< 5
Lead	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Nickel	1.6	9.46	2.25	50.2	2.51	1.75	29.6	42.1	3.76	4.57	< 10	72.9	8.62	24.2	2.57	6.17	3.89	11.4
Vanadium	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	1.99	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Zinc	5.14	261	3.5	636	10.7	< 50	687	2200	13	< 50	3.01	978	63.8	666	4.31	< 50	13.2	374

#### Notes:

Only analytes that have been detected at least once among relevant samples are presented.

< = Analyte is not detected; value presented is the laboratory reporting limit (RL).</p>

Detected results are presented in **bold font**.

Concentrations presented in units of micrograms per liter (ug/L).

J = Detected result qualified as estimated. A minus sign ("-") indicates potential low bias.

UJ = Non-detect result qualified as estimated.

\* = Result presented represents the highest detected concentration between primary and field duplicate samples. If both results are non-detect, the lowest RL is presented.

\*\* = Naphthalene was analyzed via more than one analytical method. The highest detected concentration among all methods for each sample is presented. If all results are non-detect, the lowest RL is presented.

Samples of groundwater from WCMW-1 were collected and submitted to a laboratory for PCB analysis using low-flow samples collected.

Sample ID	MCP M	lethod 1	1	Maximum				MW-1R						MW-2R					MW-3	?		
Sampling Date	-	dards	UCL	Detected	4/2	3/13	10/	3/13	1/2	7/14	EPC	10/3	3/13		7/14	EPC	4/23/13		10/4/13	-	27/14	EPC
Analytes	GW-2	GW-3	1	Concentration	Result	1/2 RL	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	ug/L		RL	Result 1/2 RL	Result	1/2 RL	ug/L
Volatile Organic Compounds (VOCs) - ug/L	0112	011 0			rtocuit	IZINE	rtooun	1/2112	rtoouit	1/2112	ug/L	rtoodit	1/2112	rtooun	1/2 11/2	ug/L	Troodit : 172		TOOGIC   172 TKE	rtoodit	1/LTC	ugrz
1,2,4-Trimethylbenzene	NA	NA	NA	3.0	< 1	0.5	< 10	NC	< 5	2.5	1.5	< 10	NC	< 5	2.5	2.5	< 1 (	.5	< 10 NC	< 5	2.5	1.5
1,3-Dichlorobenzene	6000	50000	100000	11.3	<1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	< 5	2.5	3.8		.5	< 10 5	< 5	2.5	2.7
Benzene	1000	10000	100000	2.9	< 1	0.5	< 10	NC	< 5	2.5	1.5	< 10	NC	< 5	2.5	2.5		.5	< 10 NC	< 5	2.5	1.5
Chlorobenzene	200	1000	10000	82.4	< 1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	< 5	2.5	3.8		.5	< 10 5	< 5	2.5	2.7
cis-1.2-Dichloroethylene	20	50000	100000	109	< 1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	4.13		4.6		-	11.7 -	11.7		9.7
Isopropylbenzene (Cumene)	NA	NA	NA	1.1	< 1	0.5	< 10	NC	< 5	NC	0.5	< 10	NC	< 5	NC	-		.5	< 10 NC	< 5	NC	0.5
Methyl tert-Butyl Ether (MTBE)	50000	50000	100000	60	< 1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	< 5	2.5	3.8		.5	< 10 5	< 5	2.5	2.7
Naphthalene**	700	20000	100000	56	< 2	1	< 9.59	4.795	< 9.55	4.775	3.5	3.16		14.7		8.9	< 2	1	< 9.52 4.76	< 9.53	4.765	3.5
o-Xylene	3000	5000	100000	1.8	< 1	0.5	< 10	NC	< 5	NC	0.5	< 10	NC	< 5	NC	-	< 1 0	.5	< 10 NC	< 5	NC	0.5
tert-Amyl Methyl Ether (TAME)	NA	NA	NA	12	< 5	2.5	< 50	NC	< 25	NC	2.5	< 50	NC	< 25	NC	-	< 5 2	5	< 50 NC	< 25	NC	2.5
Tetrachloroethylene	50	30000	100000	17	< 1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	4.4		4.7	17	-	10.4	7.92	-	11.8
Trichloroethylene	5	5000	50000	23.9	< 1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	< 5	2.5	3.8	5.7	-	9.7	4.08	-	6.5
Vinyl Chloride	2	50000	100000	11.4	< 2	1	< 10	5	< 5	2.5	2.8	< 10	5	5.19		5.1	< 2	1	< 10 5	< 5	2.5	2.8
Volatile Petroleum Hydrocarbons (VPH) - ug/L																			·			
C5-C8 Aliphatics (adjusted)	3000	50000	100000	27.5	< 100	NC	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8	< 100 N	IC	< 50 25	< 5	2.5	13.8
C9-C12 Aliphatics (adjusted)	5000	50000	100000	100	< 100	50	< 50	25	< 5	2.5	25.8	< 50	25	< 5	2.5	13.8	100	-	< 50 25	< 5	2.5	42.5
C9-C10 Aromatics	4000	50000	100000	300	< 100	50	< 50	25	< 5	2.5	25.8	< 50	25	3.14		14.1	< 100	50	< 50 25	< 5	2.5	25.8
Extractable Petroleum Hydrocarbons (EPH) - ug/L																						
C9-C18 Aliphatics	5000	50000	100000	181	< 100	50	< 48	24	23.6		32.5	13.2		56.9		35.1	< 100	50	< 47.6 23.8	19.5		31.1
C19-C36 Aliphatics	NA	50000	100000	24.3	< 100	NC	24.3		< 47.7	23.85	24.1	< 47.6	23.8	< 47.5	23.75	23.8	< 100 N	IC	< 47.6 23.8	< 47.7	23.85	23.8
C11-C22 Aromatics (Adjusted)	50000	5000	100000	490	110	-	< 50	25	< 50	25	53.3	< 50	25	< 50	25	25.0	130	-	< 50 25	< 50	25	60.0
2-Methylnaphthalene	2000	20000	100000	33	< 2	1	< 9.59	4.795	< 9.55	4.775	3.5	< 9.52	4.76	< 9.5	4.75	4.8	< 2	1	< 9.52 4.76	< 9.53	4.765	3.5
Acenaphthene	NA	10000	100000	98.3	< 2	1	< 9.59	4.795	< 9.55	4.775	3.5	8.64		3.27		6.0	< 2	1	< 9.52 4.76	< 9.53	4.765	3.5
Fluoranthene	NA	200	2000	3.88	< 2	1	< 9.59	NC	< 9.55	NC	1.0	2.34		< 9.5	NC	2.3	< 2	1	< 9.52 NC	< 9.53	NC	1.0
Fluorene	NA	40	400	43.4	< 2	1	< 9.59	4.795	< 9.55	4.775	3.5	6.92		4.28		5.6	< 2	1	< 9.52 4.76	< 9.53	4.765	3.5
Phenanthrene	NA	10000	100000	47.1	< 2	1	< 9.59	4.795	< 9.55	4.775	3.5	11.3		5.05	-	8.2	< 2	1	< 9.52 4.76	< 9.53	4.765	3.5
Pyrene	NA	20	600	2.05	< 2	1	< 9.59	NC	< 9.55	NC	1.0	< 9.52	NC	< 9.5	NC	-	< 2	1	< 9.52 NC	< 9.53	NC	1.0
Polychlorinated Biphenyls (PCBs) - ug/L																						
Aroclor-1242	5	10	100	0.154	-						-			-		ı		-		-		
Dissolved Metals - ug/L																						
Antimony	NA	8000	80000	26.2	< 1	0.5	< 6	3	< 6	3	2.2	< 6	3	< 6	3	3.0	1.7	-	< 6 3	< 6	3	2.6
Arsenic	NA	900	9000	8.15	1.7	-	< 10	5	< 10	5	3.9	< 10	5	< 10	5	5.0	1.7	-	6.09	< 10	5	4.3
Barium	NA	50000	100000	420	85		157		94.7		112.2	248		81		164.5	220	-	146	72	-	146.0
Cadmium	NA	4	50	12.2	< 0.5	0.25	< 1	0.5	< 1	0.5	0.4	< 1	0.5	< 1	0.5	0.5	2.1	-	0.72	2.94		1.9
Chromium	NA	300	3000	1.87	< 1	0.5	1.46		< 5	NC	1.0	1.31		< 5	NC	1.3	< 1 0	.5	1.23	< 5	NC	0.9
Lead	NA	10	150	4.72	< 1	0.5	< 5	2.5	< 5	2.5	1.8	< 5	2.5	< 5	2.5	2.5	1.3	-	< 5 2.5	< 5	2.5	2.1
Nickel	NA	200	2000	72.9	6.5		< 10	5	4.3	-	5.3	3.35		4.55		4.0	16	-	7.21	10.3	-	11.2
Vanadium	NA	4000	40000	1.99	< 5	NC	1.59		1.92	-	1.8	< 10	NC	< 10	NC	-	< 5 N	IC	< 10 NC	< 10	NC	-
Zinc	NA	900	50000	2200	< 10	5	1.71		< 50	25	10.6	2.7		66		34.4	470	-	112	481	-	354.3

#### Notes

ug/L = Micrograms per liter.

NA = No standard available.

< = Constituent is not detected; value presented is the laboratory reporting limit (RL).

\*\* = Constituent was analyzed via multiple methods. The highest detected concentration is presented.

Groundwater Standards from the Massachusetts Department of Environmental Protection Massachusetts Contingency Plan (MCP) reported in ug/L.

Only constituents that have been detected at least once among relevant samples are presented.

Exposure point concentration represents the temporal average concentration among groundwater samples within the disposal site boundary.

For results reported as non-detect, one-half of the RL was used as the representative concentration, except where the RL exceeds two times the maximum detected concentration (as indicated by "NC").

Orange highlighted results exceeded the MCP GW-2 Risk Characterization Standards.

 $Yellow\ highlighted\ results\ exceeded\ the\ MCP\ GW-3\ Risk\ Characterization\ Standards.$ 

Sample ID	MCP M	lethod 1	Ι	Maximum				MW-4R							WCMW-1					WCMW-2				WCMW-3		
Sampling Date		dards	UCL	Detected	4/23	3/13	10/4	1/13	1/2	7/14	EPC	10/	3/13	1/2	7/14	1/3	1/14	EPC	10/3/13	1/27/14	EPC	10/4/13	$\overline{}$	1/27/1	14	EPC
Analytes	GW-2	GW-3	1	Concentration	Result	1/2 RL	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	Result	1/2 RL	ug/L	Result 1/2 RL	Result 1/2 RL	ug/L	l	2 RL	Result	1/2 RL	ug/L
Volatile Organic Compounds (VOCs) - ug/L																					1 0					
1,2,4-Trimethylbenzene	NA	NA	NA	3.0	3		< 10	NC	< 5	2.5	2.8	< 10	NC	< 1	0.5			0.5	< 10 NC	< 5 2.5	2.5	< 10	NC	< 1	0.5	0.5
1,3-Dichlorobenzene	6000	50000	100000	11.3	<1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	<1	0.5			2.8	11.3	8.32	9.8	< 10	5	< 1	0.5	2.8
Benzene	1000	10000	100000	2.9	2.9		< 10	NC	< 5	2.5	2.7	< 10	NC	<1	0.5			0.5	< 10 NC	< 5 2.5	2.5	< 10 N	NC	<1	0.5	0.5
Chlorobenzene	200	1000	10000	82.4	<1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	<1	0.5			2.8	< 10 5	< 5 2.5	3.8	< 10	5	< 1	0.5	2.8
cis-1,2-Dichloroethylene	20	50000	100000	109	<1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	<1	0.5			2.8	< 10 5	< 5 2.5	3.8	< 10	5	<1	0.5	2.8
Isopropylbenzene (Cumene)	NA	NA	NA	1.1	1.1		< 10	NC	< 5	NC	1.1	< 10	NC	<1	0.5			0.5	< 10 NC	< 5 NC	-	< 10 1	NC	<1	0.5	0.5
Methyl tert-Butyl Ether (MTBE)	50000	50000	100000	60	60		35.7		20.4		38.7	< 10	5	<1	0.5			2.8	4.08	2.57	3.3	3.6		<1	0.5	2.1
Naphthalene**	700	20000	100000	56	26		56		44.5		42.2	3.3		< 5	2.5			2.9	< 9.49 4.745	< 10.4 5.2	5.0	< 9.75 4.	.875	< 5	2.5	3.7
o-Xylene	3000	5000	100000	1.8	1.8		< 10	NC	< 5	NC	1.8	< 10	NC	<1	0.5			0.5	< 10 NC	< 5 NC	-	< 10 1	NC	<1	0.5	0.5
tert-Amyl Methyl Ether (TAME)	NA	NA	NA	12	12		7.92		3		7.6	< 50	NC	< 5	2.5			2.5	< 50 NC	< 25 NC	-	< 50 1	NC	< 5	2.5	2.5
Tetrachloroethylene	50	30000	100000	17	< 1	0.5	< 10	5	3.79		3.1	< 10	5	2.32				3.7	< 10 5	< 5 2.5	3.8	< 10	5	3.5		4.3
Trichloroethylene	5	5000	50000	23.9	<1	0.5	< 10	5	< 5	2.5	2.7	< 10	5	0.746				2.9	< 10 5	< 5 2.5	3.8	< 10	5	1.03		3.0
Vinyl Chloride	2	50000	100000	11.4	< 2	1	< 10	5	< 5	2.5	2.8	< 10	5	<1	0.5			2.8	< 10 5	< 5 2.5	3.8	11.4	-	<1	0.5	6.0
Volatile Petroleum Hydrocarbons (VPH) - ug/L																										
C5-C8 Aliphatics (adjusted)	3000	50000	100000	27.5	< 100	NC	< 50	25	< 25	12.5	18.8	< 50	25	< 5	2.5			13.8	< 50 25	< 5 2.5	13.8	< 50	25	< 5	2.5	13.8
C9-C12 Aliphatics (adjusted)	5000	50000	100000	100	< 100	50	< 50	25	< 25	12.5	29.2	< 50	25	< 5	2.5			13.8	< 50 25	< 5 2.5	13.8	< 50	25	< 5	2.5	13.8
C9-C10 Aromatics	4000	50000	100000	300	300		99		57.4		152.1	24.7		< 5	2.5			13.6	10	8.04	9.0	< 50	25	< 5	2.5	13.8
Extractable Petroleum Hydrocarbons (EPH) - ug/L																										
C9-C18 Aliphatics	5000	50000	100000	181	< 100	50	84.5		181		105.2	109		< 48.9	24.45			66.7	< 47.5 23.75	< 51.8 25.9	24.8	< 48.8 2	4.4	13.1		18.8
C19-C36 Aliphatics	NA	50000	100000	24.3	< 100	NC	< 47.7	23.85	< 47.7	23.85	23.9	< 47.7	23.85	< 48.9	NC	-		23.9	19.6	< 51.8 NC	19.6	15.3		< 47.5	23.75	19.5
C11-C22 Aromatics (Adjusted)	50000	5000	100000	490	490		313		145		316.0	< 50	25	< 50	25			25.0	< 50 25	< 50 25	25.0	< 50	25	< 50	25	25.0
2-Methylnaphthalene	2000	20000	100000	33	33		27.1		4.81		21.6	< 9.54	4.77	< 9.77	4.885			4.8	< 9.49 4.745	< 10.4 5.2	5.0	< 9.75 4.	.875	< 9.51	4.755	4.8
Acenaphthene	NA	10000	100000	98.3	87		98.3	-	26.6	-	70.6	4.94	-	< 9.77	4.885			4.9	< 9.49 4.745	< 10.4 5.2	5.0	< 9.75 4.	.875	< 9.51	4.755	4.8
Fluoranthene	NA	200	2000	3.88	2.3		3.88	-	2.12		2.8	< 9.54	NC	< 9.77	NC			-	< 9.49 NC	< 10.4 NC	-	< 9.75	NC	< 9.51	NC	-
Fluorene	NA	40	400	43.4	29		43.4		22	-	31.5	3.78		< 9.77	4.885			4.3	< 9.49 4.745	< 10.4 5.2	5.0	< 9.75 4.	.875	< 9.51	4.755	4.8
Phenanthrene	NA	10000	100000	47.1	33		47.1		26.5		35.5	5.83	-	< 9.77	4.885			5.4	< 9.49 4.745	< 10.4 5.2	5.0	2.94		< 9.51	4.755	3.8
Pyrene	NA	20	600	2.05	< 2	1	2.05		< 9.53	NC	1.5	< 9.54	NC	< 9.77	NC				< 9.49 NC	< 10.4 NC	-	< 9.75 N	NC	< 9.51	NC	-
Polychlorinated Biphenyls (PCBs) - ug/L																										
Aroclor-1242	5	10	100	0.154							-					0.154		0.2			-	-				-
Dissolved Metals - ug/L										•										· · · · · · · · · · · · · · · · · · ·						
Antimony	NA	8000	80000	26.2	<1	0.5	< 6	3	< 6	3	2.2	< 6	3	< 6	3			3.0	< 6 3	26.2	14.6	< 6	3	< 6	3	3.0
Arsenic	NA	900	9000	8.15	1.8		< 10	5	< 10	5	3.9	< 10	5	< 10	5			5.0	7.74	7.22	7.5	5.73		< 10	5	5.4
Barium	NA	50000	100000	420	380		396		273		349.7	78.9	-	58.3				68.6	152	99.4	125.7	46.3		51.7		49.0
Cadmium	NA	4	50	12.2	< 0.5	0.25	< 1	0.5	< 1	0.5	0.4	< 1	0.5	0.94				0.7	< 1 0.5	0.64	0.6	<1 (	0.5	0.7		0.6
Chromium	NA	300	3000	1.87	< 1	0.5	1.3		< 5	NC	0.9	1.17	-	< 5	NC			1.2	1.63	< 5 NC	1.6	< 5 N	NC	< 5	NC	-
Lead	NA	10	150	4.72	<1	0.5	< 5	2.5	< 5	2.5	1.8	< 5	2.5	< 5	2.5			2.5	< 5 2.5	4.72	3.6	< 5	2.5	< 5	2.5	2.5
Nickel	NA	200	2000	72.9	5.6	-	2.3		4.75		4.2	6.52		47.7	-			27.1	3.58	5.72	4.7	1.60		9.46	]	5.5
Vanadium	NA	4000	40000	1.99	< 5	NC	< 10	NC	< 10	NC	-	< 10	NC	< 10	NC			-	< 10 NC	< 10 NC	-	< 10 1	NC	< 10	NC	-
Zinc	NA	900	50000	2200	< 10	5	2.56		85.6		31.1	4.26		51.4	-			27.8	22.6	57.7	40.2	5.14		261		133.1

#### Notes

ug/L = Micrograms per liter.

NA = No standard available.

Groundwater Standards from the Massachusetts Department of Environmental Protection Massachusetts Contingency Plan (MCP) reported in ug/L.

Only constituents that have been detected at least once among relevant samples are presented.

Exposure point concentration represents the temporal average concentration among groundwater samples within the disposal site boundary.

For results reported as non-detect, one-half of the RL was used as the representative concentration, except where the RL exceeds two times the maximum detected concentration (as indicated by "NC").

Orange highlighted results exceeded the MCP GW-2 Risk Characterization Standards.

Yellow highlighted results exceeded the MCP GW-3 Risk Characterization Standards.

<sup>&</sup>lt; = Constituent is not detected; value presented is the laboratory reporting limit (RL).

<sup>\*\* =</sup> Constituent was analyzed via multiple methods. The highest detected concentration is presented.

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Sample ID	MCP Me	ethod 1		Maximum			WCMW-	4				WCMW-5					WCMW-6					WCMW-7					WCMW-8		
Sampling Date	Stand	lards	UCL	Detected	10	/3/13	1/2	27/14	EPC	10/	3/13	1/27/	/14	EPC	10/3	3/13	1/27/14	4	EPC	10/3	3/13	1/2	7/14	EPC	10/3	3/13	1/28/	/14	EPC
Analytes	GW-2	GW-3		Concentration	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	ug/L
Volatile Organic Compounds (VOCs) - ug/L																													
1,2,4-Trimethylbenzene	NA	NA	NA	3.0	< 10	NC	< 1	0.5	0.5	< 10	NC	< 5	2.5	2.5	< 10	NC	< 5	2.5	2.5	< 5	2.5	< 2	1	1.8	< 10	NC	<1	0.5	0.5
1,3-Dichlorobenzene	6000	50000	100000	11.3	< 10	5	< 1	0.5	2.8	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	< 5	2.5	< 2	1	1.8	< 10	5	<1	0.5	2.8
Benzene	1000	10000	100000	2.9	< 10	NC	< 1	0.5	0.5	< 10	NC	< 5	2.5	2.5	< 10	NC	< 5	2.5	2.5	< 5	2.5	< 2	1	1.8	< 10	NC	<1	0.5	0.5
Chlorobenzene	200	1000	10000	82.4	< 10	5	< 1	0.5	2.8	82.4		8		45.2	< 10	5	< 5	2.5	3.8	< 5	2.5	< 2	1	1.8	< 10	5	<1	0.5	2.8
cis-1,2-Dichloroethylene	20	50000	100000	109	< 10	5	< 1	0.5	2.8	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	86		109		97.5	< 10	5	2.96		4.0
Isopropylbenzene (Cumene)	NA	NA	NA	1.1	< 10	NC	< 1	0.5	0.5	< 10	NC	< 5	NC		< 10	NC	< 5	NC	-	< 5	NC	< 2	1	1.0	< 10	NC	<1	0.5	0.5
Methyl tert-Butyl Ether (MTBE)	50000	50000	100000	60	< 10	5	< 1	0.5	2.8	7.93		12		10.0	2.14		< 5	2.5	2.3	< 5	2.5	2		2.3	< 10	5	<1	0.5	2.8
Naphthalene**	700	20000	100000	56	< 9.5	4.75	< 5	2.5	3.6	< 9.57	4.785	< 9.55	4.775	4.8	< 9.47	4.735	< 9.47	4.735	4.7	< 9.47	4.735	< 9.48	4.74	4.7	< 9.49	4.745	< 5	2.5	3.6
o-Xylene	3000	5000	100000	1.8	< 10	NC	< 1	0.5	0.5	< 10	NC	< 5	NC	-	< 10	NC	< 5	NC		< 5	NC	< 2	1	1.0	< 10	NC	<1	0.5	0.5
tert-Amyl Methyl Ether (TAME)	NA	NA	NA	12	< 50	NC	< 5	2.5	2.5	< 50	NC	< 25	NC	-	< 50	NC	< 25	NC		< 25	NC	< 10	5	5.0	< 50	NC	< 5	2.5	2.5
Tetrachloroethylene	50	30000	100000	17	< 10	5	1.72	-	3.4	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	< 5	2.5	< 2	1	1.8	< 10	5	1.97		3.5
Trichloroethylene	5	5000	50000	23.9	< 10	5	0.479	-	2.7	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	23.9		7.53		15.7	< 10	5	2.26		3.6
Vinyl Chloride	2	50000	100000	11.4	< 10	5	< 1	0.5	2.8	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	< 5	2.5	3.66		3.1	< 10	5	<1	0.5	2.8
Volatile Petroleum Hydrocarbons (VPH) - ug/L																													
C5-C8 Aliphatics (adjusted)	3000	50000	100000	27.5	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8	27.5		4.23	-	15.9	< 50	25	1.93		13.5	< 50	25	< 5	2.5	13.8
C9-C12 Aliphatics (adjusted)	5000	50000	100000	100	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8
C9-C10 Aromatics	4000	50000	100000	300	< 50	25	< 5	2.5	13.8	9.38		3.58		6.5	< 50	25	0.506		12.8	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8
Extractable Petroleum Hydrocarbons (EPH) - ug/L																													
C9-C18 Aliphatics	5000	50000	100000	181	< 47.5	23.75	< 47.8	23.9	23.8	19.5		10		14.8	13.9		15.5		14.7	12.9		12.4		12.7	< 47.4	23.7	17.3		20.5
C19-C36 Aliphatics	NA	50000	100000	24.3	11.4	-	< 47.8	23.9	17.7	< 47.9	23.95	< 47.7	23.85	23.9	< 47.4	23.7	< 47.4	23.7	23.7	16.5		< 47.3	23.65	20.1	< 47.4	23.7	< 48	24	23.9
C11-C22 Aromatics (Adjusted)	50000	5000	100000	490	< 50	25	< 50	25	25.0	< 50	25	< 50	25	25.0	< 50	25	< 50	25	25.0	< 50	25	< 50	25	25.0	< 50	25	< 50	25	25.0
2-Methylnaphthalene	2000	20000	100000	33	< 9.5	4.75	< 9.56	4.78	4.8	< 9.57	4.785	< 9.55	4.775	4.8	< 9.47	4.735	< 9.47	4.735	4.7	< 9.47	4.735	< 9.48	4.74	4.7	< 9.49	4.745	< 9.59	4.795	4.8
Acenaphthene	NA	10000	100000	98.3	< 9.5	4.75	< 9.56	4.78	4.8	< 9.57	4.785	< 9.55	4.775	4.8	< 9.47	4.735	< 9.47	4.735	4.7	< 9.47	4.735	< 9.48	4.74	4.7	< 9.49	4.745	< 9.59	4.795	4.8
Fluoranthene	NA	200	2000	3.88	< 9.5	NC	< 9.56	NC		< 9.57	NC	< 9.55	NC	-	< 9.47	NC	< 9.47	NC		< 9.47	NC	< 9.48	NC		< 9.49	NC	< 9.59	NC	-
Fluorene	NA	40	400	43.4	< 9.5	4.75	< 9.56	4.78	4.8	< 9.57	4.785	< 9.55	4.775	4.8	< 9.47	4.735	< 9.47	4.735	4.7	< 9.47	4.735	< 9.48	4.74	4.7	< 9.49	4.745	< 9.59	4.795	4.8
Phenanthrene	NA	10000	100000	47.1	< 9.5	4.75	< 9.56	4.78	4.8	2.52		< 9.55	4.775	3.6	1.89		< 9.47	4.735	3.3	< 9.47	4.735	< 9.48	4.74	4.7	< 9.49	4.745	< 9.59	4.795	4.8
Pyrene	NA	20	600	2.05	< 9.5	NC	< 9.56	NC		< 9.57	NC	< 9.55	NC	-	< 9.47	NC	< 9.47	NC		< 9.47	NC	< 9.48	NC		< 9.49	NC	< 9.59	NC	
Polychlorinated Biphenyls (PCBs) - ug/L																													
Aroclor-1242	5	10	100	0.154		-		-				-		-										-			-		-
Dissolved Metals - ug/L																											•	•	•
Antimony	NA	8000	80000	26.2	< 6	3	< 6	3	3.0	< 6	3	< 6	3	3.0	< 6	3	< 6	3	3.0	< 6	3	< 6	3	3.0	< 6	3	< 6	3	3.0
Arsenic	NA	900	9000	8.15	< 10	5	< 10	5	5.0	< 10	5	< 10	5	5.0	< 10	5	< 10	5	5.0	< 10	5	< 10	5	5.0	< 10	5	< 10	5	5.0
Barium	NA	50000	100000	420	75.4	-	53.7	-	64.6	396		287		341.5	399		187		293.0	420		304		362.0	335		179		257.0
Cadmium	NA	4	50	12.2	< 1	0.5	1.97	-	1.2	< 1	0.5	<1	0.5	0.5	< 1	0.5	6.52		3.5	< 1	0.5	< 1	0.5	0.5	< 1	0.5	12.2		6.4
Chromium	NA	300	3000	1.87	1.26	-	< 5	NC	1.3	1.6		< 5	NC	1.6	1.61		< 5	NC	1.6	1.81		< 5	NC	1.8	1.33		< 5	NC	1.3
Lead	NA	10	150	4.72	< 5	2.5	< 5	2.5	2.5	< 5	2.5	< 5	2.5	2.5	< 5	2.5	< 5	2.5	2.5	< 5	2.5	< 5	2.5	2.5	< 5	2.5	< 5	2.5	2.5
Nickel	NA	200	2000	72.9	2.25	-	50.20	-	26.2	2.51		1.75		2.1	29.6		42.1		35.9	3.76		4.57		4.2	< 10	5	72.9		39.0
Vanadium	NA	4000	40000	1.99	< 10	NC	< 10	NC		< 10	NC	< 10	NC	-	< 10	NC	< 10	NC		< 10	NC	1.99		2.0	< 10	NC	< 10	NC	-
Zinc	NA	900	50000	2200	3.5	-	636	-	319.8	10.7		< 50	25	17.9	687		2200		1443.5	13		< 50	25	19.0	3.01	-	978		490.5
						•		•																					

### Notes:

ug/L = Micrograms per liter.

NA = No standard available.

Groundwater Standards from the Massachusetts Department of Environmental Protection Massachusetts Contingency Plan (MCP) reported in ug/L.

Only constituents that have been detected at least once among relevant samples are presented.

Exposure point concentration represents the temporal average concentration among groundwater samples within the disposal site boundary.

For results reported as non-detect, one-half of the RL was used as the representative concentration, except where the RL exceeds two times the maximum detected concentration (as indicated by "NC").

Orange highlighted results exceeded the MCP GW-2 Risk Characterization Standards.

Yellow highlighted results exceeded the MCP GW-3 Risk Characterization Standards.

<sup>&</sup>lt; = Constituent is not detected; value presented is the laboratory reporting limit (RL).

 $<sup>\</sup>begin{tabular}{ll} ** = Constituent was analyzed via multiple methods. The highest detected concentration is presented. \\ \end{tabular}$ 

Sample ID	MCP M	lethod 1		Maximum			WCMW-9					WCMW-10	)				WCMW-1	1	
Sampling Date	Stan	dards	UCL	Detected	10/	3/13	1/2	7/14	EPC	10/	3/13	1/2	8/14	EPC	10/	3/13	1/2	7/14	EPC
Analytes	GW-2	GW-3	1	Concentration	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	ug/L	Result	1/2 RL	Result	1/2 RL	ug/L
Volatile Organic Compounds (VOCs) - ug/L		•										•				-	•	*	
1,2,4-Trimethylbenzene	NA	NA	NA	3.0	< 10	NC	< 5	2.5	2.5	< 10	NC	< 5	2.5	2.5	< 10	NC	< 5	2.5	2.5
1,3-Dichlorobenzene	6000	50000	100000	11.3	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8
Benzene	1000	10000	100000	2.9	< 10	NC	< 5	2.5	2.5	< 10	NC	< 5	2.5	2.5	< 10	NC	< 5	2.5	2.5
Chlorobenzene	200	1000	10000	82.4	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8
cis-1,2-Dichloroethylene	20	50000	100000	109	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8
Isopropylbenzene (Cumene)	NA	NA	NA	1.1	< 10	NC	< 5	NC		< 10	NC	< 5	NC	-	< 10	NC	< 5	NC	-
Methyl tert-Butyl Ether (MTBE)	50000	50000	100000	60	3.6	-	< 5	2.5	3.1	2.9		< 5	2.5	2.7	< 10	5	< 5	2.5	3.8
Naphthalene**	700	20000	100000	56	< 9.47	4.735	< 9.5	4.75	4.7	< 9.48	4.74	< 9.48	4.74	4.7	< 11	5.5	< 9.47	4.735	5.1
o-Xylene	3000	5000	100000	1.8	< 10	NC	< 5	NC	-	< 10	NC	< 5	NC	-	< 10	NC	< 5	NC	-
tert-Amyl Methyl Ether (TAME)	NA	NA	NA	12	< 50	NC	< 25	NC	-	< 50	NC	< 25	NC	-	< 50	NC	< 25	NC	-
Tetrachloroethylene	50	30000	100000	17	< 10	5	9.61		7.3	< 10	5	< 5	2.5	3.8	< 10	5	9.11		7.1
Trichloroethylene	5	5000	50000	23.9	5.33	-	3.7		4.5	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8
Vinyl Chloride	2	50000	100000	11.4	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8	< 10	5	< 5	2.5	3.8
Volatile Petroleum Hydrocarbons (VPH) - ug/L																			
C5-C8 Aliphatics (adjusted)	3000	50000	100000	27.5	< 50	25	1.83		13.4	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8
C9-C12 Aliphatics (adjusted)	5000	50000	100000	100	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8
C9-C10 Aromatics	4000	50000	100000	300	< 50	25	1.74		13.4	< 50	25	< 5	2.5	13.8	< 50	25	< 5	2.5	13.8
Extractable Petroleum Hydrocarbons (EPH) - ug/L																			
C9-C18 Aliphatics	5000	50000	100000	181	< 47.3	23.65	10.9		17.3	10.3		< 47.4	23.7	17.0	< 55.2	27.6	< 47.3	23.65	25.6
C19-C36 Aliphatics	NA	50000	100000	24.3	9.61		< 47.5	23.75	16.7	< 47.4	23.7	< 47.4	23.7	23.7	15.8	-	< 47.3	23.65	19.7
C11-C22 Aromatics (Adjusted)	50000	5000	100000	490	< 50	25	< 50	25	25.0	< 50	25	< 50	25	25.0	< 50	25	< 50	25	25.0
2-Methylnaphthalene	2000	20000	100000	33	< 9.47	4.735	< 9.5	4.75	4.7	< 9.48	4.74	< 9.48	4.74	4.7	< 11	5.5	< 9.47	4.735	5.1
Acenaphthene	NA	10000	100000	98.3	< 9.47	4.735	< 9.5	4.75	4.7	< 9.48	4.74	< 9.48	4.74	4.7	< 11	5.5	< 9.47	4.735	5.1
Fluoranthene	NA	200	2000	3.88	< 9.47	NC	< 9.5	NC	-	< 9.48	NC	< 9.48	NC	-	< 11	NC	< 9.47	NC	-
Fluorene	NA	40	400	43.4	< 9.47	4.735	< 9.5	4.75	4.7	< 9.48	4.74	< 9.48	4.74	4.7	< 11	5.5	< 9.47	4.735	5.1
Phenanthrene	NA	10000	100000	47.1	1.93	-	< 9.5	4.75	3.3	< 9.48	4.74	< 9.48	4.74	4.7	< 11	5.5	< 9.47	4.735	5.1
Pyrene	NA	20	600	2.05	< 9.47	NC	< 9.5	NC	-	< 9.48	NC	< 9.48	NC	-	< 11	NC	< 9.47	NC	-
Polychlorinated Biphenyls (PCBs) - ug/L																			
Aroclor-1242	5	10	100	0.154						-			-	-		-			-
Dissolved Metals - ug/L																			
Antimony	NA	8000	80000	26.2	< 6	3	< 6	3	3.0	< 6	3	< 6	3	3.0	< 6	3	< 6	3	3.0
Arsenic	NA	900	9000	8.15	6.41	-	8.15		7.3	< 10	5	< 10	5	5.0	5.63	-	< 10	5	5.3
Barium	NA	50000	100000	420	337		176		256.5	351		153	-	252.0	160	-	48.4		104.2
Cadmium	NA	4	50	12.2	< 1	0.5	1.7		1.1	< 1	0.5	< 1	0.5	0.5	< 1	0.5	< 1	0.5	0.5
Chromium	NA	300	3000	1.87	1.6		< 5	NC	1.6	1.87		< 5	NC	1.9	1.72	-	< 5	NC	1.7
Lead	NA	10	150	4.72	< 5	2.5	< 5	2.5	2.5	< 5	2.5	< 5	2.5	2.5	< 5	2.5	< 5	2.5	2.5
Nickel	NA	200	2000	72.9	8.62		24.2		16.4	2.57		6.17	-	4.4	3.89	-	11.4		7.6
Vanadium	NA	4000	40000	1.99	< 10	NC	< 10	NC	-	< 10	NC	< 10	NC	-	< 10	NC	< 10	NC	-
Zinc	NA	900	50000	2200	63.8		666		364.9	4.31		< 50	25	14.7	13.2	-	374	-	193.6

#### Notes:

ug/L = Micrograms per liter.

NA = No standard available.

Groundwater Standards from the Massachusetts Department of Environmental Protection Massachusetts Contingency Plan (MCP) reported in ug/L.

Only constituents that have been detected at least once among relevant samples are presented.

Exposure point concentration represents the temporal average concentration among groundwater samples within the disposal site boundary.

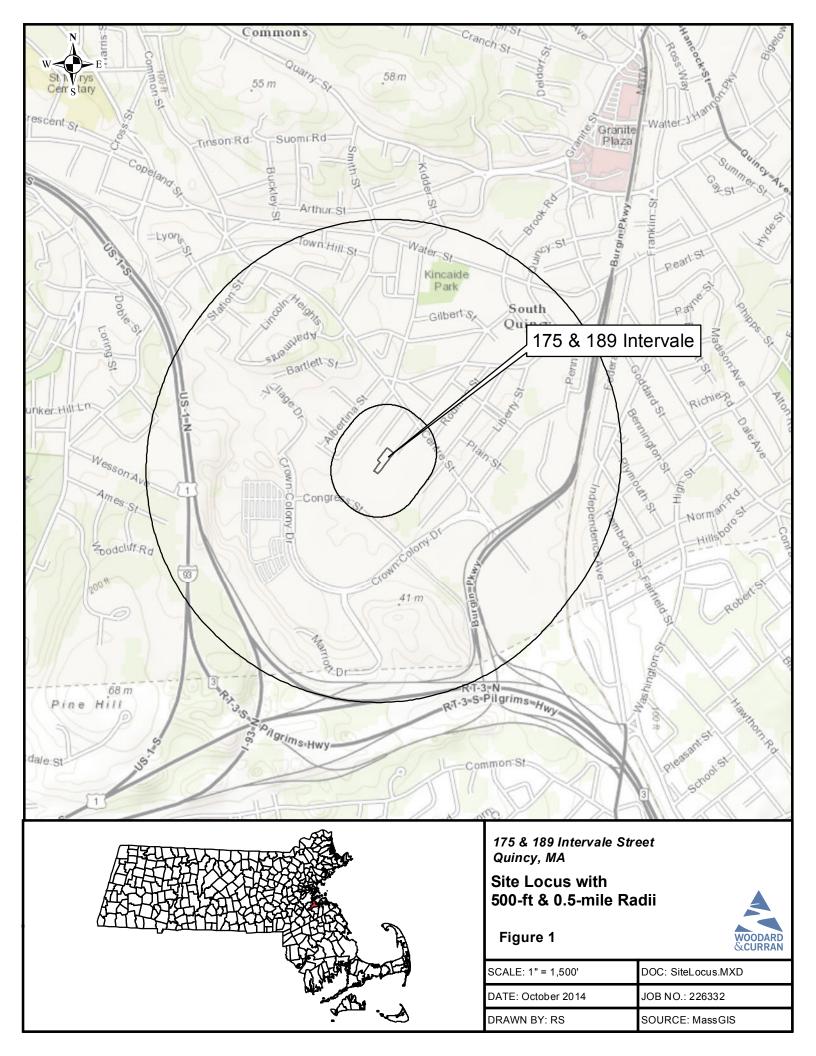
For results reported as non-detect, one-half of the RL was used as the representative concentration, except where the RL exceeds two times the maximum detected concentration (as indicated by "NC").

Orange highlighted results exceeded the MCP GW-2 Risk Characterization Standards.

Yellow highlighted results exceeded the MCP GW-3 Risk Characterization Standards.

<sup>&</sup>lt; = Constituent is not detected; value presented is the laboratory reporting limit (RL).

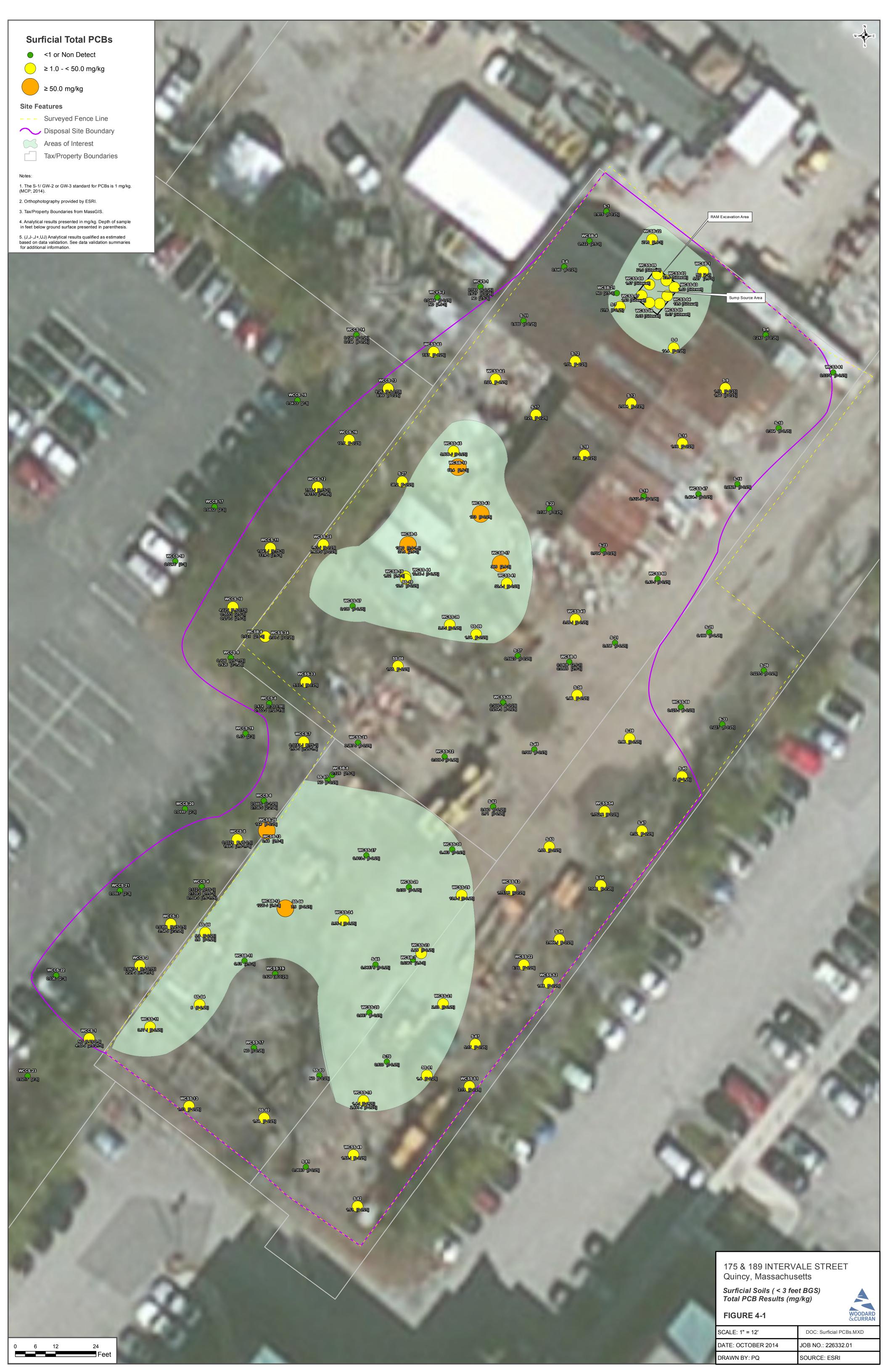
<sup>\*\* =</sup> Constituent was analyzed via multiple methods. The highest detected concentration is presented.







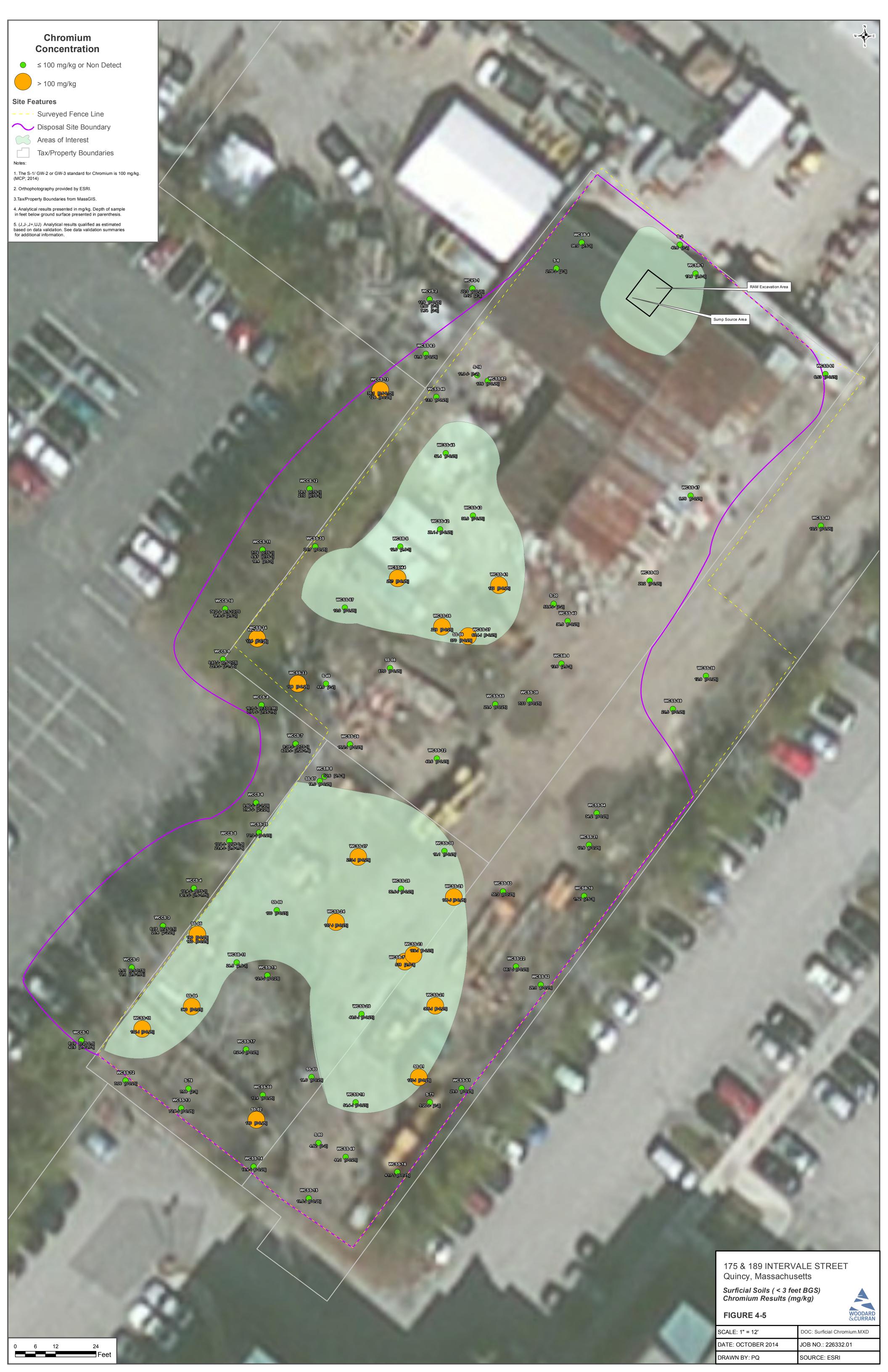


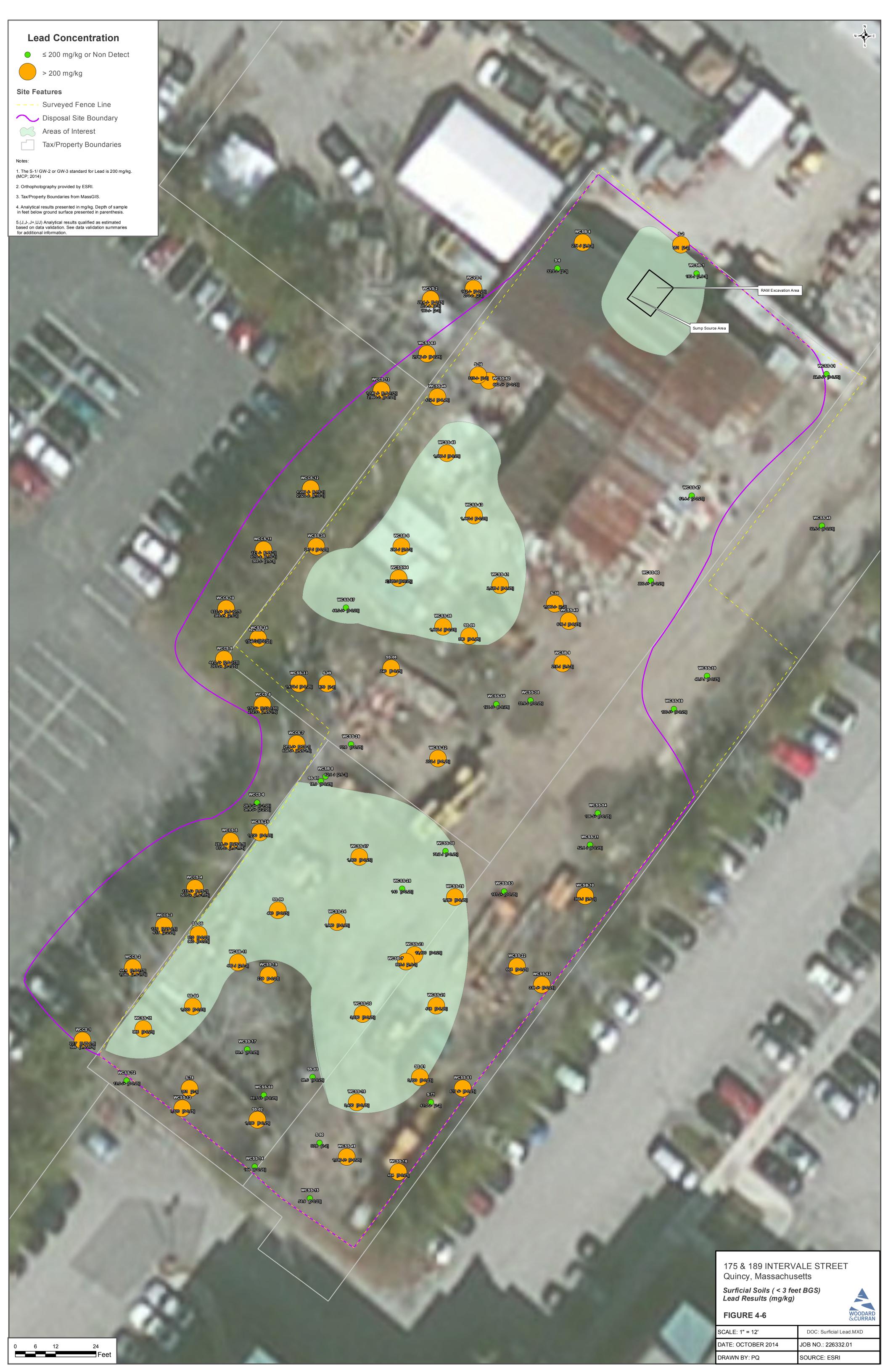






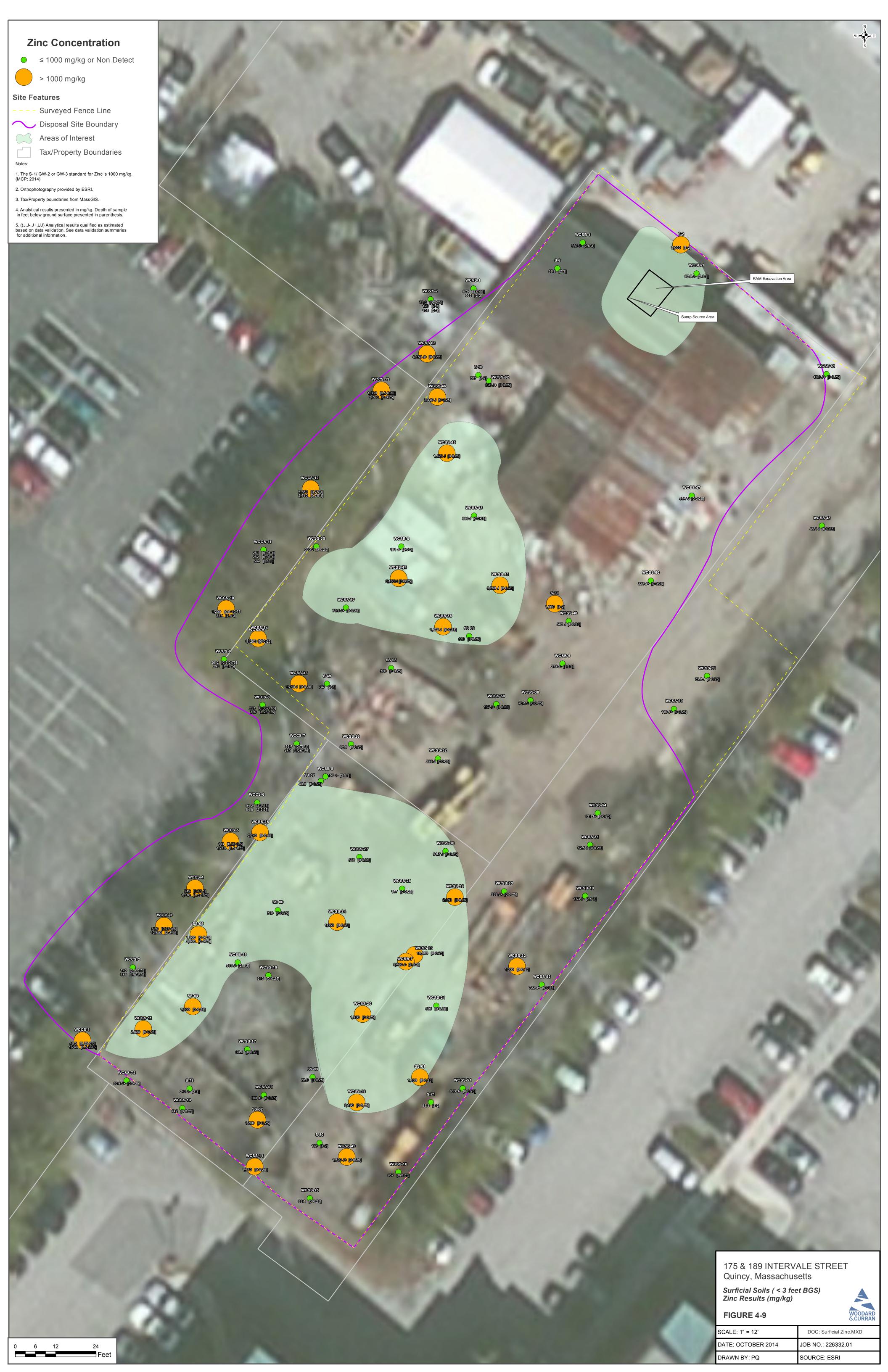




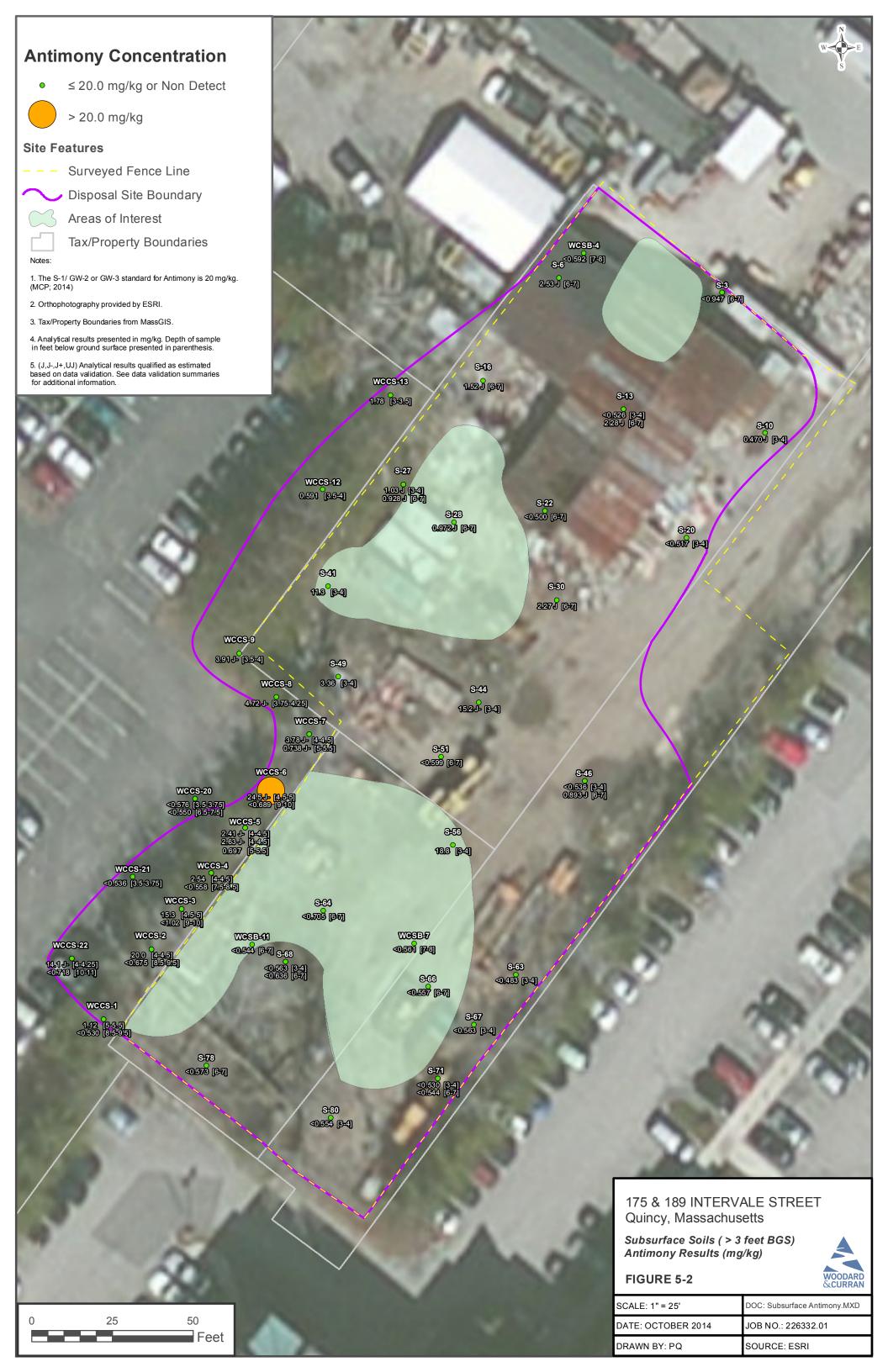


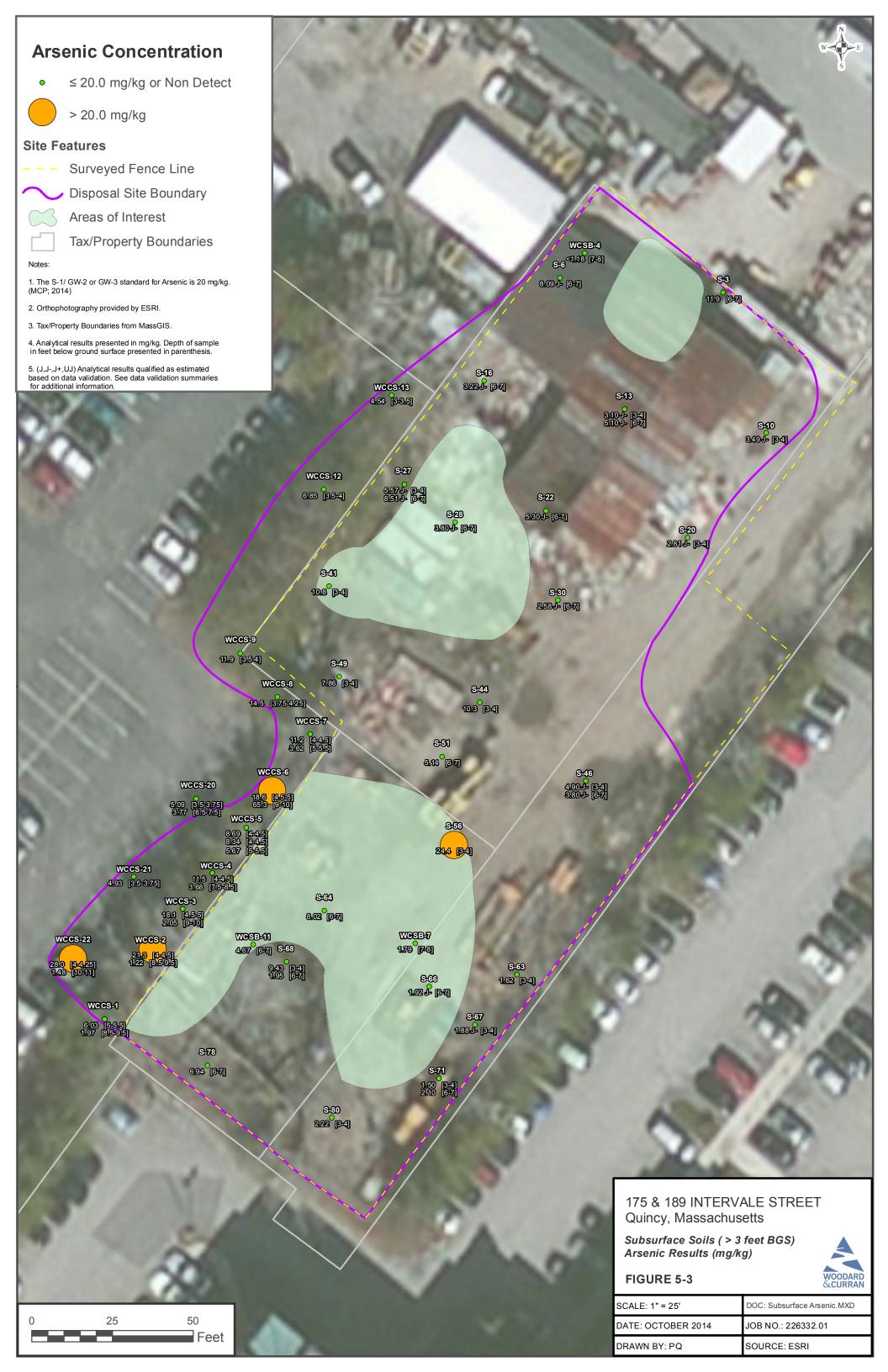


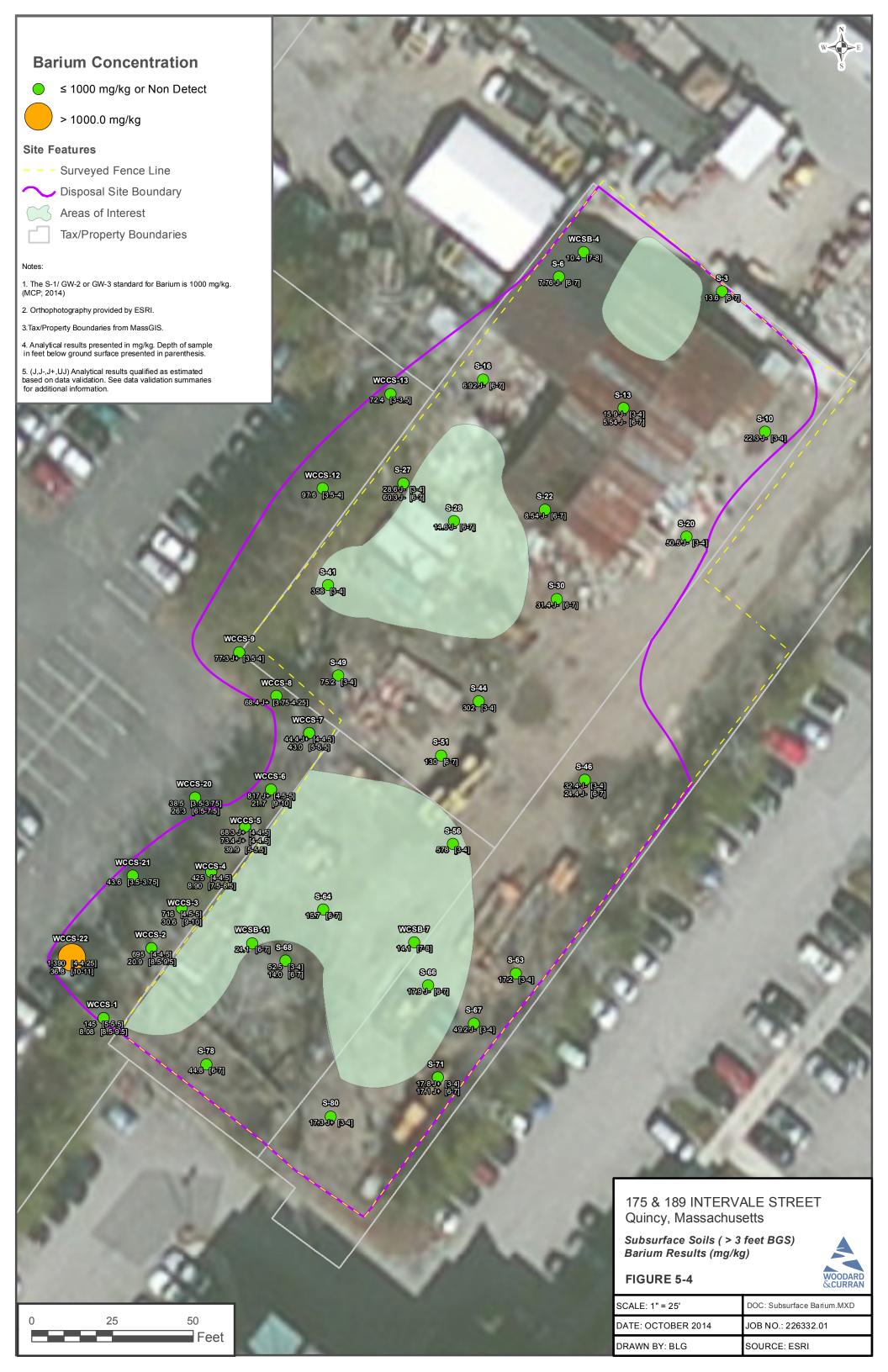


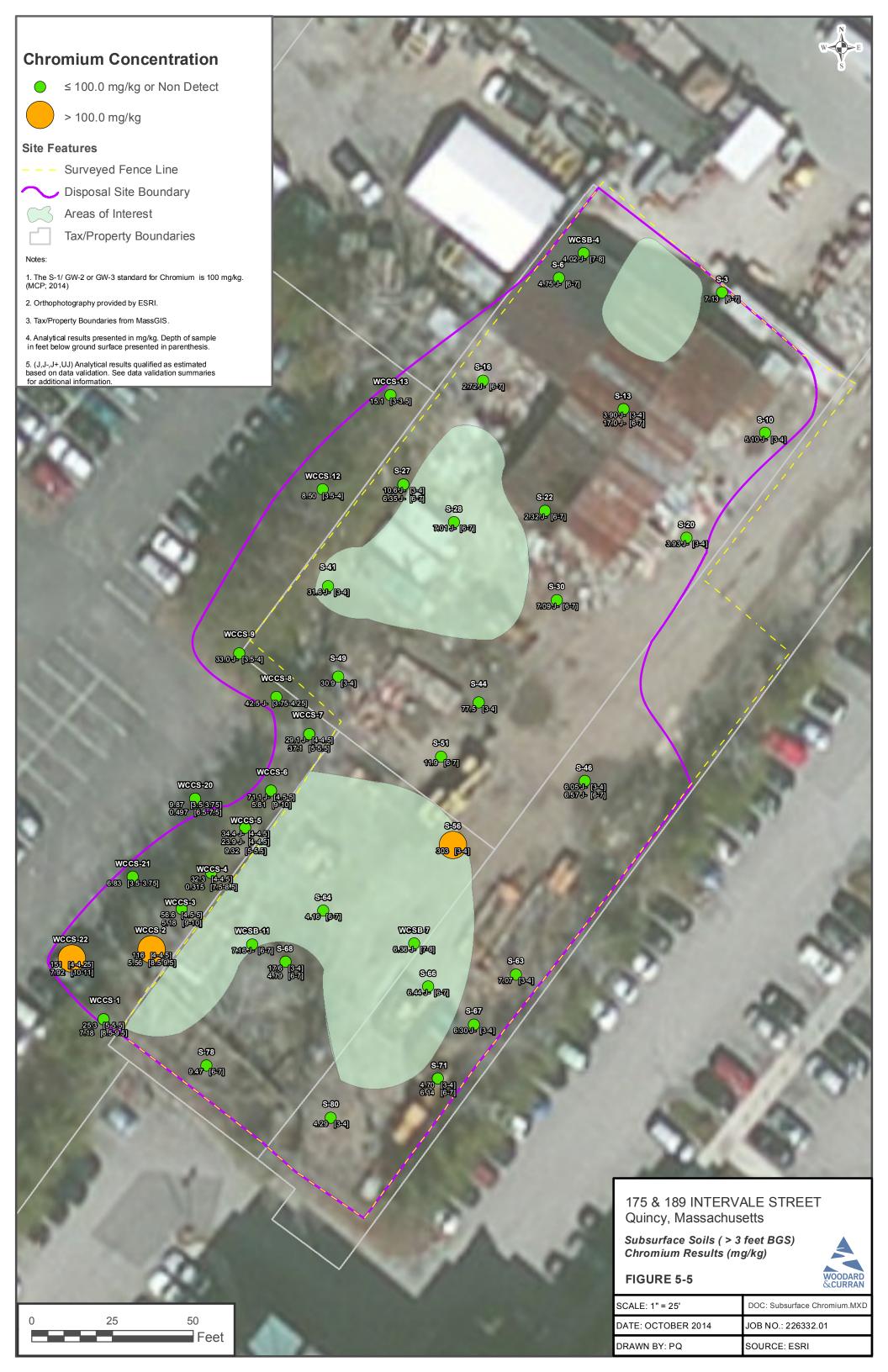


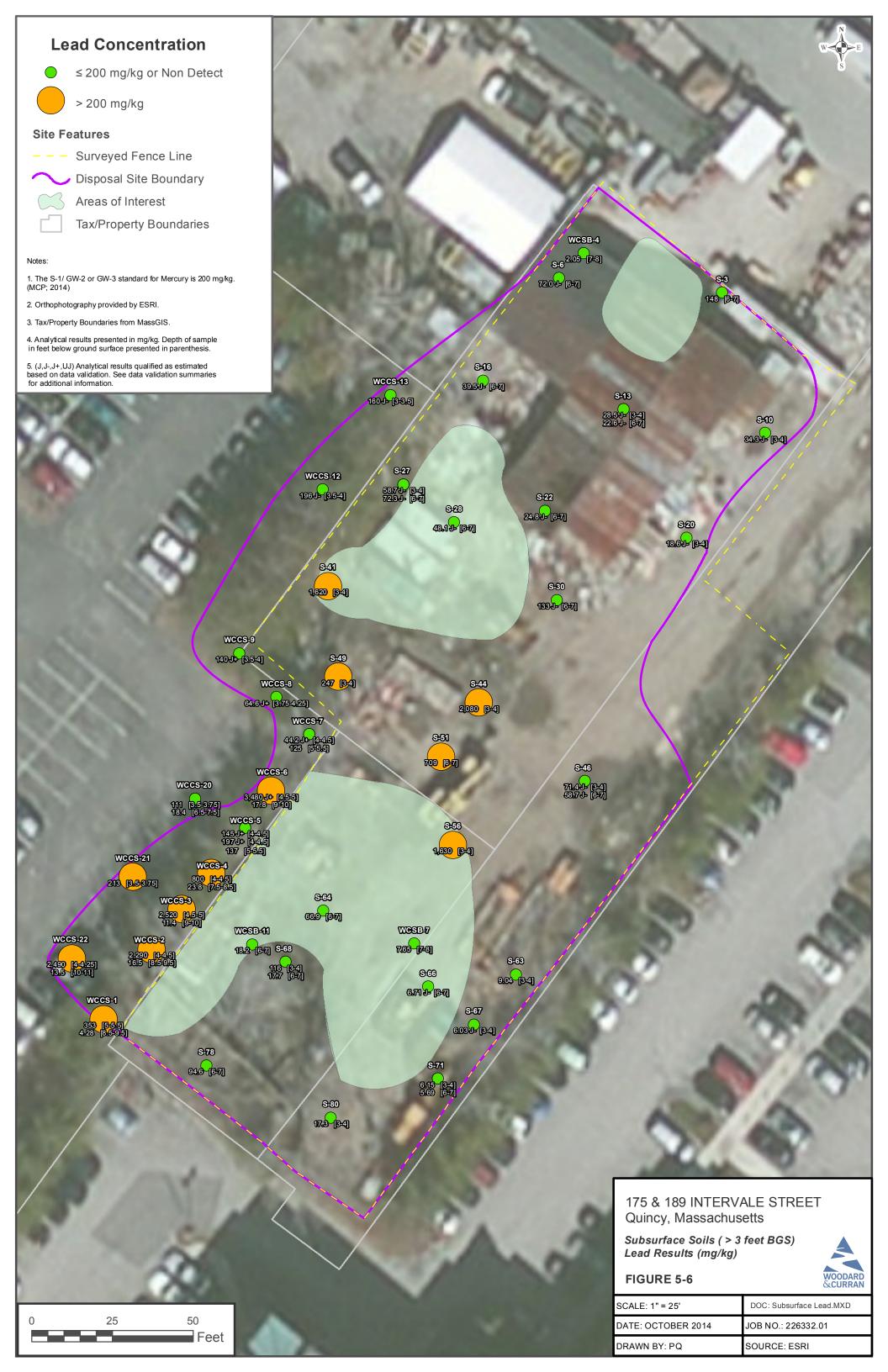


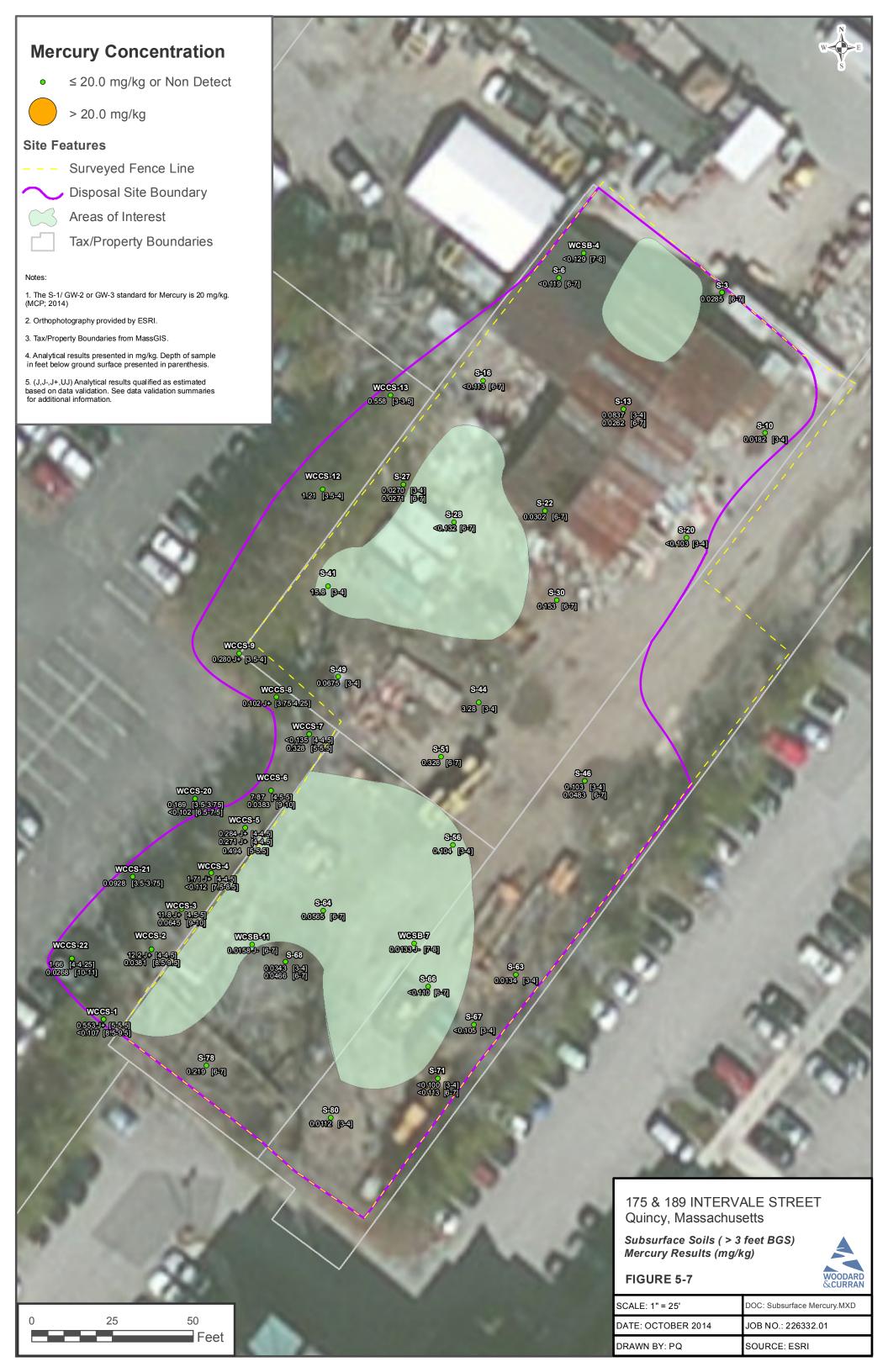


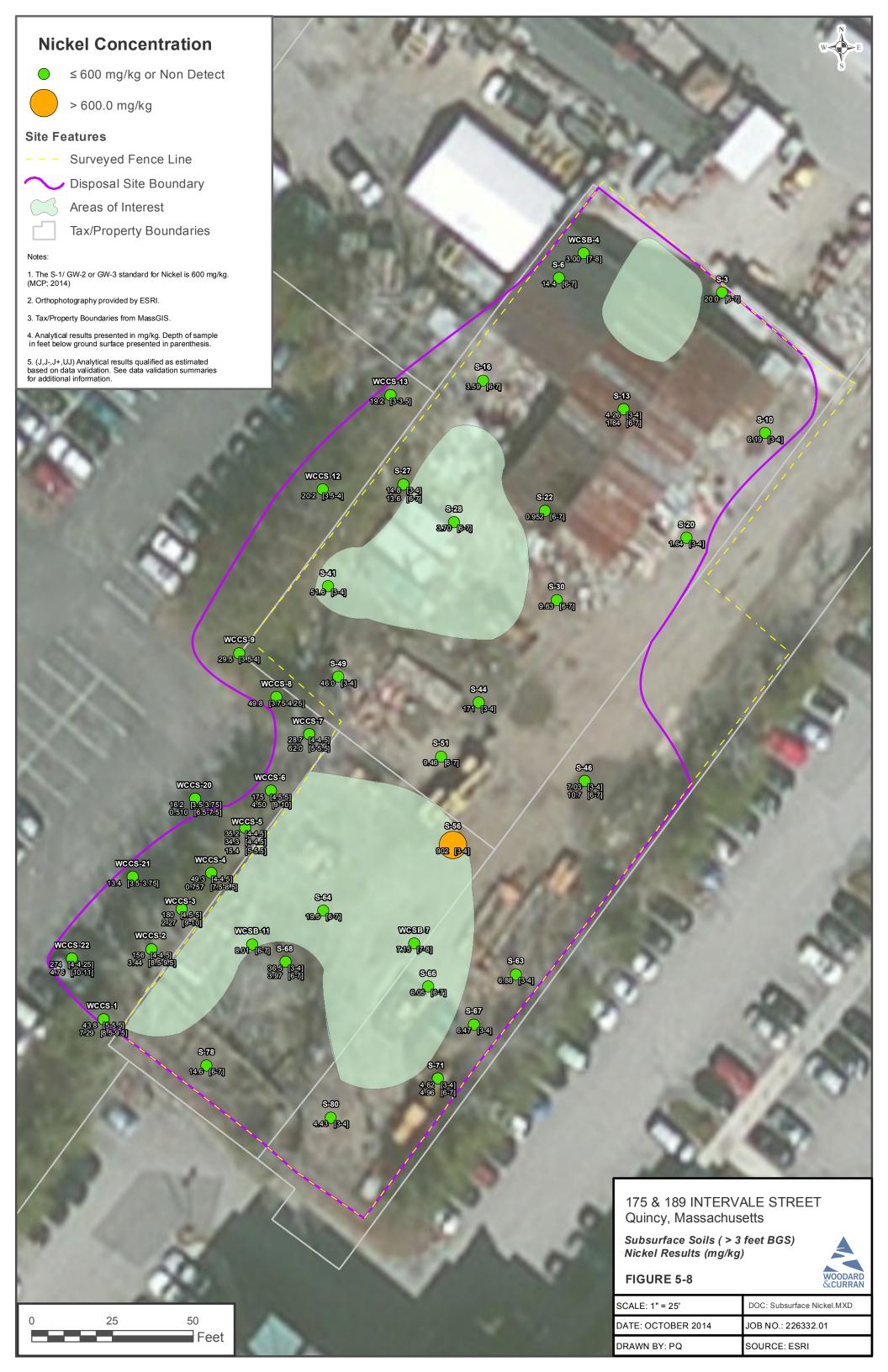


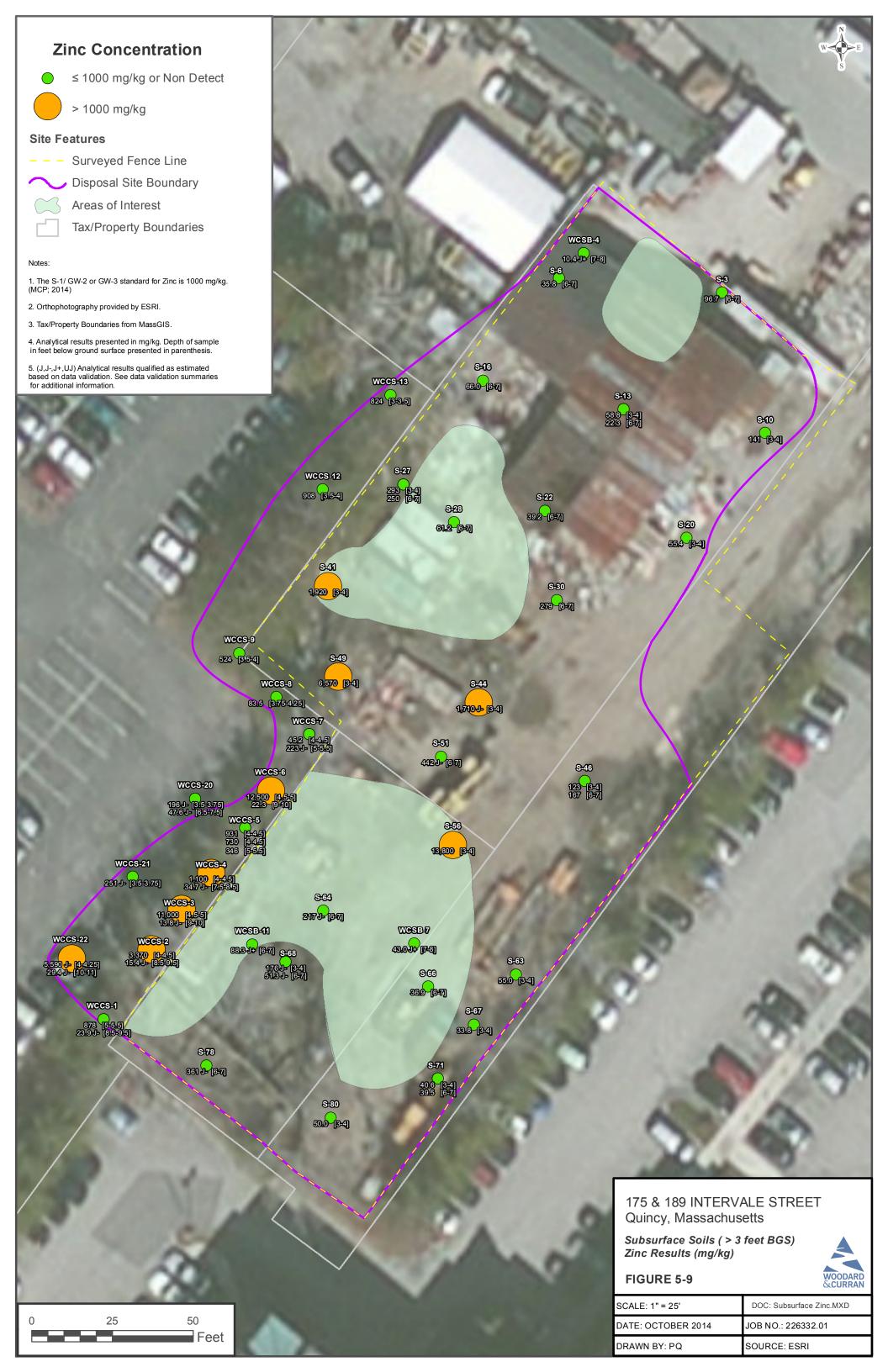


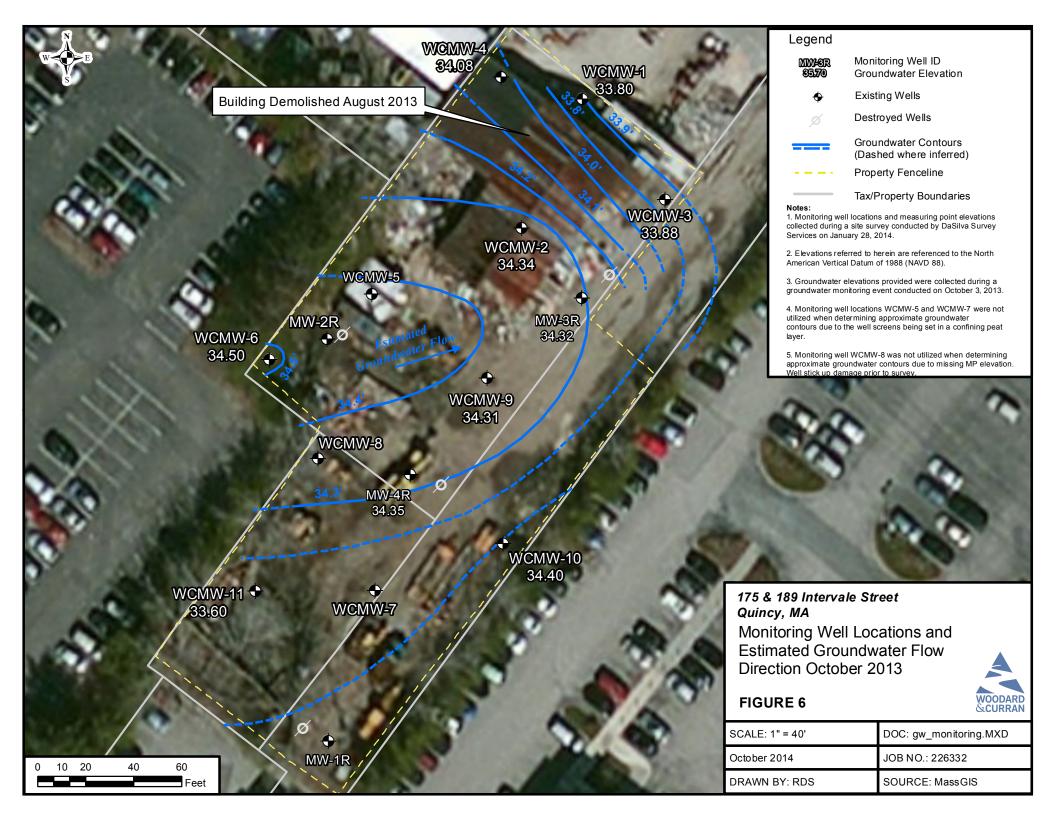


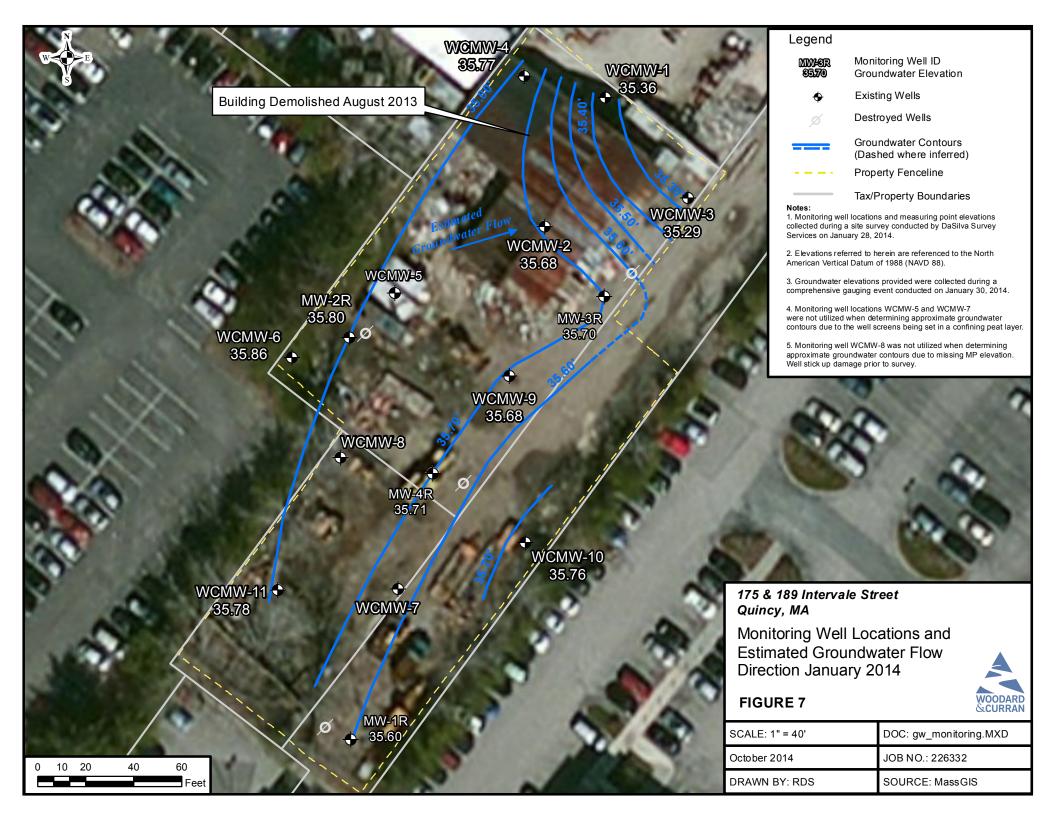




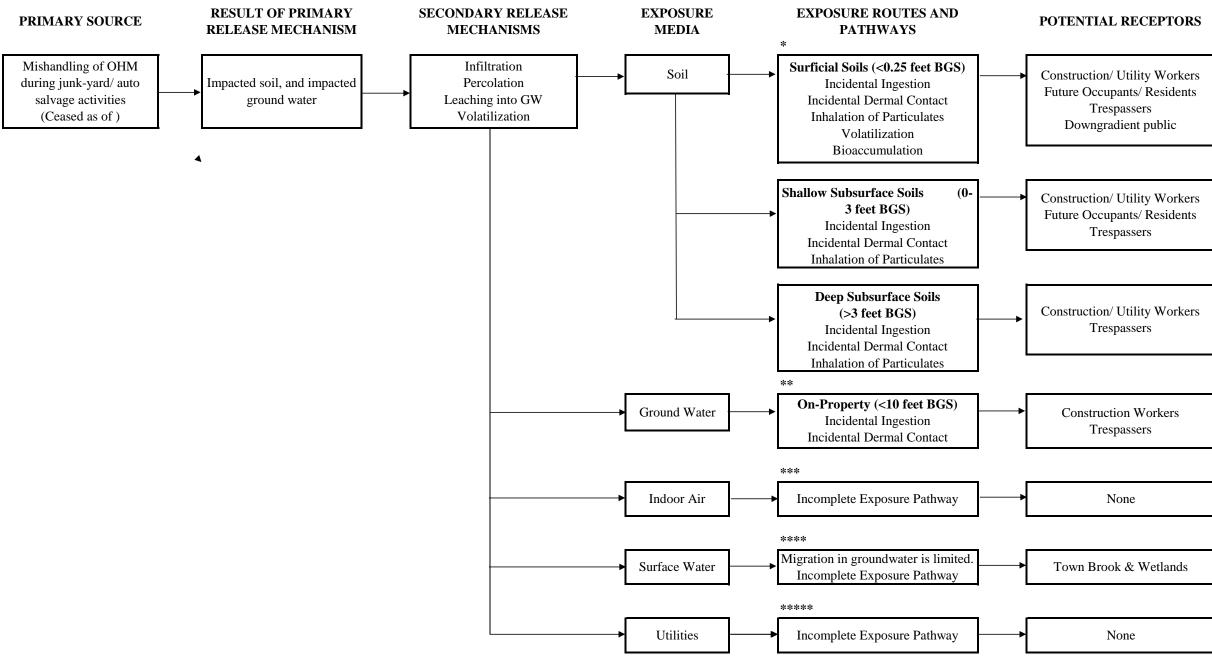








# FIGURE 8 CONCEPTUAL SITE MODEL City of Quincy 175 & 189 Intervale Street Quincy, Massachusetts



#### NOTES:

- 1. \* = Based upon depth to soil impacts.
- 2. \*\* = Based upon depth to ground water.
- 3. \*\*\* = Based upon depth to ground water, ground water analytical data that are below MCP Method 1 Risk Characterization Standards, and ground water at the disposal site is not used for drinking water (GW-1) and will not likely be used as drinking water in the future based upon available information provided in this report.
- 4. \*\*\*\* = The nearest hydraulically downgradient surface water body is Town Brook and its accompanying wetlands located approximately 0.25 mile east of the disposal site. Based upon concentrations of constituents in ground water, significant impacts are not present. Surface water will not likely be impacted by the OHM because solid phase contamination will naturally attenuate during groundwater migration.
- 5. \*\*\*\* = Underground utilities are not known to exist within the disposal site boundary.
- 6. BGS = below ground surface.



# APPENDIX A PUBLIC NOTIFICATION DOCUMENTATION



October 31, 2014

Linda Montillio A Monti Grantie Company Inc. 266 Centre Street Quincy, MA 02169

Re: Phase II Comprehensive Site Assessment Report & Phase III Remedial Action Plan

175 & 189 Intervale Street Quincy, Massachusetts

MassDEP Release Tracking Number 3-2524

Dear Ms. Montillio:

This letter is being sent to you to fulfill the public notification requirements established by the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). The public notification provisions of the MCP require that owners of properties located within the disposal site boundary from a release of oil or hazardous material be notified of the submittal of a Phase II Comprehensive Site Assessment (CSA) Report & Phase III Remedial Action Plan (RAP). This letter specifically pertains to the property located 40 Vernon Street in Quincy, Massachusetts which is located within the disposal site boundary associated with a release of oil and hazardous material at the 175 & 189 Intervale Street property in Quincy, Massachusetts. A summary of findings and conclusions for these reports and the Site Plan are attached to this letter for your reference.

A complete copy of the Phase II CSA Report & Phase III RAP will be submitted to the Massachusetts Department of Environmental Protection (MassDEP) Northeast Regional Office (NERO) located at 205B Lowell Street in Wilmington, Massachusetts after November 5, 2014 and may be available for review on the MassDEP file viewer website (<a href="http://public.dep.state.ma.us/wsc\_viewer/main.aspx">http://public.dep.state.ma.us/wsc\_viewer/main.aspx</a>). If it is not available on the MassDEP website, please contact the MassDEP NERO to schedule a file review.

If you have any questions regarding this notification, please feel free to contact me at (978) 557-8150.

Sincerely,

WOODARD & CURRAN INC.

Jarrod Yoder, PG, LSP Project Manager

226332.01

Enclosures: BWSC122

Phase II and Phase III Summary of Findings and Statement of Conclusions

Site Plan

cc: MassDEP - Northeast Regional Office



**ENCLOSURES:** BWSC122

PHASE II & PHASE III SUMMARY OF FINDINGS

AND STATEMENT OF CONCLUSIONS

SITE PLAN



## Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

### BWSC122

This notice is related to: Release Tracking Number

1	
-	

## **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

As Required by 310 CMR 40.1406 of the Massachusetts Contingency Plan (MCP)			
A. DISPOSAL SITE ADDRESS: (associated wire	th Release Tracking Number provided above)		
1. Street Address:			
2. City/Town:	3. ZIP Code:		
4. Assessor's Parcel ID:			
B. THIS NOTICE IS BEING PROVIDED TO TH	E FOLLOWING PROPERTY OWNER:		
1. Name of Property Owner:			
	Being Provided: (property owned by person named in B1)		
a. Street Address:			
b. City/Town:	c. ZIP Code:		
3. Assessor's Parcel ID:			
C. THIS NOTICE IS BEING GIVEN: (check on	e)		
1. Upon Completion of a Phase II Comprel	nensive Site Assessment.		
2. Upon Submittal of a Permanent or Temp	porary Solution Statement (i.e., Site Closure Report).		
3. Upon Completion of Additional Investiga	ation showing that Oil or Hazardous Material is not Present at the Property.		
	OUS MATERIAL PRESENT OR LIKELY TO BE PRESENT AT THE PROPERTY :		
(check all that apply) AFFECTED ENVIRONMENTAL MEDIA	PRINCIPAL CHEMICAL(S) PRESENT		
1. Soil			
2. Groundwater			
3. Surface Water			
4. Sediment			
5. Indoor Air			
6. Soil Gas			
7. Other:			
(specify)			
E. ATTACHMENTS PROVIDED WITH THIS NO	OTICE, AS REQUIRED BY 310 CMR 40.1406:		
<ol> <li>1. A Copy of the Map Showing or a Descrip likely to be Present.</li> </ol>	ption Describing the Area where the Oil and/or Hazardous Material is or is		
2. A Copy of the Phase II Comprehensive Site Assessment or Permanent or Temporary Solution Statement Conclusions.			
3. Specify the category of Solution that applies to the Disposal Site.			
1. Permanent Solution with No Conditions.			
2. Permanent Solution with Con	nditions.		
i. An Activity and Use Lin	nitation has been implemented.		
ii. An Activity and Use Lir	mitation has not been implemented.		
3. Temporary Solution.			

Revised: 5/30/2014 Page 1 of 2



# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

#### **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

BWSC12	2	2
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This notice is related to: Release Tracking Number

-	

-	As Required by 310 CMR 40.1406 of the Massac	husetts Contingency Plan (MCP)	
F.	. CONTACT INFORMATION RELATING TO THE PARTY PROVIDING THIS NOTICE:		
1.	Name of Organization:		
2.	Contact First Name:	3. Last Name:	
4.	Street:	5. Title:	
6.	City/Town:	7. State: 8. ZIP Code:	
9.	Telephone:	10. Fmail:	

#### MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1406. The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

#### THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party(ies) who is/are addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form.

#### PURPOSE OF THIS NOTICE

Parties who are taking actions to respond to releases of oil or hazardous material to the environment are required by state regulations (referred to above) to notify the owners of property where the oil or hazardous material is or is likely to be present. These same parties are also required to notify property owners upon completion of actions to address the oil or hazardous material, or if additional investigations show that the oil or hazardous material is not present at a property. **Section C** on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time.

#### INFORMATION RELATED TO YOUR PROPERTY

**Section D** on the reverse side of this form indicates the type(s) of oil or hazardous material that is or is likely to be present at your property, and the environmental medium (e.g., soil or groundwater) where it is or is likely to be present. **Please note** that when an investigation indicates that the oil or hazardous material is or is likely to be present at your property, this does not mean that the oil or hazardous material is posing a health risk to you. Parties who are taking actions to address oil and hazardous material releases are required by state regulations to adequately investigate these releases and take necessary actions to ensure that affected properties meet standards that are protective of human health and the environment.

#### ATTACHED MAP OR DESCRIPTION AND REPORT CONCLUSIONS

The party providing this notice to you is required to attach a map or description that indicates the boundaries of the area where the oil or hazardous material is or is likely to be present, and the conclusions of the site investigation or closure report (Section E). These attachments should give you additional information about the nature and location of the oil or hazardous material with respect to your property.

#### FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <a href="http://www.mass.gov/eea/agencies/massdep/cleanup">http://www.mass.gov/eea/agencies/massdep/cleanup</a>.

For more information regarding this notice, you may contact the party listed in **Section F** of this form. Information about the disposal site identified in **Section A** is also available in files at the Massachusetts Department of Environmental Protection.

See <a href="http://public.dep.state.ma.us/SearchableSites2/Search.aspx">http://public.dep.state.ma.us/SearchableSites2/Search.aspx</a> to view site-specific files on-line or <a href="http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html">http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html</a> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Revised: 5/30/2014 Page 2 of 2

#### PHASE II CSA CONCLUSIONS

This section summarizes the findings of the Phase II CSA for 175 & 189 Intervale Street in Quincy, Massachusetts. Historical research and field investigation activities conducted at the disposal site have led to the following conclusions:

- The disposal site, identified as RTN 3-2524 comprises approximately 36,000 square feet (0.83 acres) across 175 & 189 Intervale Street, the paper street, a portion of 500 Congress Street and a portion of 40 Vernon Street in Quincy, Massachusetts.
- Earliest obtainable records indicate that properties at 175 & 189 Intervale Street have been utilized as a junk yard and metal scrapping facility since the early 1940's.
- PDM Metals, Inc. occupied the Property beginning in June 1971 when the land was purchased by Henry P. Gregoire, Trustee of the Gregoire Family Trust. PDM Metals continued operations at the property until the mid-1990's when the Property was abandoned by the Gregoire Family Trust. The property was seized by the City via tax foreclosure in 2009 and has maintained the exempt status under M.G.L. 21E, Section 2.
- The Property was used by PDM Metals for auto salvage, metal scrapping, transformer cutting, manhole
  recoating and general materials storage. Improper procedures and mishandling of materials during
  these former operations are the sources of the conditions of OHM contamination at the Property.
- Potential conditions of OHM contamination were noted by MassDEP (formerly MassDEQE) in 1986, following a fire involving a 55-gallon drum of apparent waste solvent. Due to the length of operations occurring prior to and following the initial discovery of the contamination, it cannot be determined if releases may have occurred at different times, with different materials, and at different magnitudes.
- Hazardous materials left over from operations at the Property were collected, removed, and transported
  off-Property for disposal at an approved facility by the City in December 2012 and January 2013. All
  known sources of OHM have been removed or eliminated and historical operations and practices are
  no longer active at the Property.
- The former building was demolished in August/September 2013. During demolition activities, PCB-impacts building foundation and soil were encountered and a RAM Plan was prepared to remove the impacted foundation and soil in the top 3 feet to reduce site risks. The RAM was modified to conduct a bench-scale and pilot scale test to evaluate potential options to stabilize leachable lead and chlordane detected in disposal samples.
- During Phase II CSA activities, soil samples were collected from off-Property locations to better define the nature and extent of impacts from historical PDM, Inc. activities. Two off-property location (40 Vernon Street and 500 Congress Street) were approached by the City to collect samples under the Massachusetts Brownfields program. 120-day reporting conditions were identified at 40 Vernon Street and 500 Congress Street. The MassDEP was notified of the 120-day reporting conditions on May 20, 2014 (40 Vernon Street; RTN 3-32188) and September 18, 2014 (500 Congress Street; RTN 3-32443). During soil sampling activities in July 2014, an Imminent Hazard (IH) condition was identified on the 500 Congress Street property. The Trustees of the Medical Office Condominiums reported the IH condition to MassDEP on September 24, 2014 and MassDEP issued RTN 3-32452. The Trustees hired GZA to respond to the IH condition, which consisted on installing a temporary fence and plastic cover around the impacted area.
- PCBs, metals, and petroleum (EPH/VPH) and chlorinated VOCs were detected in disposal site soils.
  The majority of the contamination detected is related to the historic operations at the Property.
  Impacted soils are generally limited to the top 3 feet across the Property with a few exceptions where deeper impacts to the groundwater table were observed. The deepest impacts were identified in AOI #1 (former sump area; approximately 14 feet bgs) and AOI #2 (central yard area; greater than 7 feet bgs).
- Historical fill is present at depths ranging from existing grade to approximately 8 feet bgs at the disposal site. The underlying stratigraphy consists of interbedded sequences of dense silt, and coarse to fine

- sand, which generally grades toward more sand with depth. Organic peat was also observed in several of the soil borings throughout the Property at a depth of approximately 8-15 feet bgs.
- Groundwater is typically encountered at a depth of 5 to 12 feet bgs, with the depth varying seasonally
  and the locations of monitoring wells on top of the fill material that was located below the former
  building. Groundwater flow is generally towards the east and northeast in the approximate direction of
  Town Brook.
- Low concentrations of chlorinated solvents, cadmium, and zinc were detected in groundwater but are not expected to migrate off-Property at significant concentrations above applicable Method 1 RC standards.
- NAPL was not observed in any monitoring wells at the Property.
- The RC concluded that Method 1 RC standards and UCLs were exceeded in soil and/or groundwater.
   Therefore, this condition precludes the achievement of No Significant Risk to Human Health, Public Welfare, and the Environment at the disposal site.
- A condition of No Significant Risk to safety has been achieved at the disposal site.
- Additional Comprehensive Response Actions are required at this disposal site to achieve a Permanent Solution. A Phase III Remedial Action Plan was submitted concurrently with this Phase II CSA Report.

#### PHASE III RAP CONCLUSIONS

The retained Remedial Action Alternatives (RAAs) present vastly different approaches to address residual impacts at the disposal site. Some alternatives offer a more "active" or "direct" approach by removing impacted soil while others rely upon institutional controls and chemically altering impacted soil. The potential also exists for residual impacts to remain in the subsurface following implementation due to unforeseen circumstances during excavation, notably that subsurface impacts may extend too far vertically and approximately 8 feet into the water table or off-property below structures. The results from the recent pilot test support the effectiveness of soil fixation/stabilization for RCRA materials (lead) and chlordane-impacted soil and can be used to reduce costs for soil excavation and off-site disposal. Limited options are available for the types of impacts and extents of contamination at this disposal site. Therefore, institutional controls may be necessary to prevent exposures to certain receptors if excavation and soil stabilization activities cannot eliminate risks to residential receptors. Groundwater impacts are limited and are expected to decrease upon removal of impacted vadose zone soil.

Based upon significant experience with the RAAs evaluated in this Phase III RAP, Woodard & Curran anticipates that all three will be the most effective approach for the release of OHM identified at the disposal site. The RAAs were selected based implementability, effectiveness and reliability in reaching a Permanent Solution, as well as the risks, benefits, and timing involved with implementing the RAAs. A Permanent Solution will be achieved relatively quickly upon completion of the approach. A Permanent Solution will be achieved when contaminant concentrations are below risk-based cleanup levels with the implementation of institutional controls (if needed) and a condition of No Significant Risk of harm to human health, public welfare, and the environment is achieved. These RAAs meet the remedial objectives for the disposal site and incorporates a combined source area reduction and beneficial influence on impacted groundwater. This selection was predicated on recent pilot test activities, which demonstrated the applicability and effectiveness of soil fixation/stabilization.

The USEPA intends on conducting a Removal Program to mitigate impacts identified in vadose zone soil, which should eliminate a majority of elevated concentrations of COPCs at the disposal site. USEPA's approach is similar to the RAAs described in this Phase III RAP with the exception of the stabilization/fixation materials. The USEPA is planning on using crystalline permanganate to stabilize metals and chlordane. If additional stabilization is warranted after the Removal Program and funding is available, the City may undertake additional stabilization/fixation activities using cement as summarized in Section 3.4 to achieve a Permanent Solution. Groundwater monitoring will also be performed upon installation of replacement wells after the Removal Program is completed.





# COMMITMENT & INTEGRITY DRIVE RESULTS

40 Shattuck Road, Suite 110 Andover, Massachusetts 01810 www.woodardcurran.com T 866.702.6371 T 978.557.8150 F 978.557.7948



October 31, 2014

Christopher Foster, Esq. Robinson & Cole, LLP One Boston Place, 25th Floor Boston, MA 02108

Re: Phase II Comprehensive Site Assessment Report & Phase III Remedial Action Plan

175 & 189 Intervale Street Quincy, Massachusetts

MassDEP Release Tracking Number 3-2524

Dear Dr. Foster:

This letter is being sent to you to fulfill the public notification requirements established by the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). The public notification provisions of the MCP require that owners of properties located within the disposal site boundary from a release of oil or hazardous material be notified of the submittal of a Phase II Comprehensive Site Assessment (CSA) Report & Phase III Remedial Action Plan (RAP). This letter specifically pertains to the property located 40 Vernon Street in Quincy, Massachusetts which is located within the disposal site boundary associated with a release of oil and hazardous material at the 175 & 189 Intervale Street property in Quincy, Massachusetts. A summary of findings and conclusions for these reports and the Site Plan are attached to this letter for your reference.

A complete copy of the Phase II CSA Report & Phase III RAP will be submitted to the Massachusetts Department of Environmental Protection (MassDEP) Northeast Regional Office (NERO) located at 205B Lowell Street in Wilmington, Massachusetts after November 5, 2014 and may be available for review on the MassDEP file viewer website (<a href="http://public.dep.state.ma.us/wsc\_viewer/main.aspx">http://public.dep.state.ma.us/wsc\_viewer/main.aspx</a>). If it is not available on the MassDEP website, please contact the MassDEP NERO to schedule a file review.

If you have any questions regarding this notification, please feel free to contact me at (978) 557-8150.

Sincerely,

WOODARD & CURRAN INC.

Jarrod Yoder, PG, LSP Project Manager

226332.01

Enclosures: BWSC122

Phase II and Phase III Summary of Findings and Statement of Conclusions

Site Plan

cc: MassDEP - Northeast Regional Office



**ENCLOSURES:** BWSC122

PHASE II & PHASE III SUMMARY OF FINDINGS

AND STATEMENT OF CONCLUSIONS

SITE PLAN



## Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

## BWSC122

This notice is related to: Release Tracking Number

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# **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

As Required by 310 CMR 4	40.1406 of the Massachusetts Contingency Plan (MCP)	
A. DISPOSAL SITE ADDRESS: (associated wi	ith Release Tracking Number provided above)	
1. Street Address:		
2. City/Town:	3. ZIP Code:	
4. Assessor's Parcel ID:		
B. THIS NOTICE IS BEING PROVIDED TO TH	HE FOLLOWING PROPERTY OWNER:	
	IL I GLEOWING I KOI EKI I OWNEK.	
	s Being Provided: (property owned by person named in B1)	
a. Street Address:		
b. City/Town:	c. ZIP Code:	
3. Assessor's Parcel ID:		
C. THIS NOTICE IS BEING GIVEN: (check or	ne)	
1. Upon Completion of a Phase II Compre	•	
2. Upon Submittal of a Permanent or Tem	porary Solution Statement (i.e., Site Closure Report).	
3. Upon Completion of Additional Investiga	ation showing that Oil or Hazardous Material is not Present at the Property.	
D. DESCRIPTION OF OIL AND/OR HAZARDO	OUS MATERIAL PRESENT OR LIKELY TO BE PRESENT AT THE PROPERTY :	
(check all that apply)		
AFFECTED ENVIRONMENTAL MEDIA	PRINCIPAL CHEMICAL(S) PRESENT	
1. Soil		
2. Groundwater		
3. Surface Water		
4. Sediment		
5. Indoor Air		
6. Soil Gas		
7. Other:		
(specify)		
E. ATTACHMENTS PROVIDED WITH THIS N	OTICE, AS REQUIRED BY 310 CMR 40.1406:	
<ul> <li>1. A Copy of the Map Showing or a Descri likely to be Present.</li> </ul>	ption Describing the Area where the Oil and/or Hazardous Material is or is	
2. A Copy of the Phase II Comprehensive Site Assessment or Permanent or Temporary Solution Statement Conclusions.		
3. Specify the category of Solution that applies to the Disposal Site.		
1. Permanent Solution with No Conditions.		
2. Permanent Solution with Co	anditions.	
i. An Activity and Use Lin	mitation has been implemented.	
ii. An Activity and Use Lii	mitation has not been implemented.	
3. Temporary Solution.		

Revised: 5/30/2014 Page 1 of 2



# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

#### **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

BWSC12	2	2
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This notice is related to: Release Tracking Number

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-	As Required by 310 CMR 40.1406 of the Massac	husetts Contingency Plan (MCP)	
F.	. CONTACT INFORMATION RELATING TO THE PARTY PROVIDING THIS NOTICE:		
1.	Name of Organization:		
2.	Contact First Name:	3. Last Name:	
4.	Street:	5. Title:	
6.	City/Town:	7. State: 8. ZIP Code:	
9.	Telephone:	10. Fmail:	

#### MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1406. The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

#### THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party(ies) who is/are addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form.

#### PURPOSE OF THIS NOTICE

Parties who are taking actions to respond to releases of oil or hazardous material to the environment are required by state regulations (referred to above) to notify the owners of property where the oil or hazardous material is or is likely to be present. These same parties are also required to notify property owners upon completion of actions to address the oil or hazardous material, or if additional investigations show that the oil or hazardous material is not present at a property. **Section C** on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time.

#### INFORMATION RELATED TO YOUR PROPERTY

**Section D** on the reverse side of this form indicates the type(s) of oil or hazardous material that is or is likely to be present at your property, and the environmental medium (e.g., soil or groundwater) where it is or is likely to be present. **Please note** that when an investigation indicates that the oil or hazardous material is or is likely to be present at your property, this does not mean that the oil or hazardous material is posing a health risk to you. Parties who are taking actions to address oil and hazardous material releases are required by state regulations to adequately investigate these releases and take necessary actions to ensure that affected properties meet standards that are protective of human health and the environment.

#### ATTACHED MAP OR DESCRIPTION AND REPORT CONCLUSIONS

The party providing this notice to you is required to attach a map or description that indicates the boundaries of the area where the oil or hazardous material is or is likely to be present, and the conclusions of the site investigation or closure report (Section E). These attachments should give you additional information about the nature and location of the oil or hazardous material with respect to your property.

#### FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <a href="http://www.mass.gov/eea/agencies/massdep/cleanup">http://www.mass.gov/eea/agencies/massdep/cleanup</a>.

For more information regarding this notice, you may contact the party listed in **Section F** of this form. Information about the disposal site identified in **Section A** is also available in files at the Massachusetts Department of Environmental Protection.

See <a href="http://public.dep.state.ma.us/SearchableSites2/Search.aspx">http://public.dep.state.ma.us/SearchableSites2/Search.aspx</a> to view site-specific files on-line or <a href="http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html">http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html</a> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Revised: 5/30/2014 Page 2 of 2

### PHASE II CSA CONCLUSIONS

This section summarizes the findings of the Phase II CSA for 175 & 189 Intervale Street in Quincy, Massachusetts. Historical research and field investigation activities conducted at the disposal site have led to the following conclusions:

- The disposal site, identified as RTN 3-2524 comprises approximately 36,000 square feet (0.83 acres) across 175 & 189 Intervale Street, the paper street, a portion of 500 Congress Street and a portion of 40 Vernon Street in Quincy, Massachusetts.
- Earliest obtainable records indicate that properties at 175 & 189 Intervale Street have been utilized as a junk yard and metal scrapping facility since the early 1940's.
- PDM Metals, Inc. occupied the Property beginning in June 1971 when the land was purchased by Henry P. Gregoire, Trustee of the Gregoire Family Trust. PDM Metals continued operations at the property until the mid-1990's when the Property was abandoned by the Gregoire Family Trust. The property was seized by the City via tax foreclosure in 2009 and has maintained the exempt status under M.G.L. 21E, Section 2.
- The Property was used by PDM Metals for auto salvage, metal scrapping, transformer cutting, manhole
  recoating and general materials storage. Improper procedures and mishandling of materials during
  these former operations are the sources of the conditions of OHM contamination at the Property.
- Potential conditions of OHM contamination were noted by MassDEP (formerly MassDEQE) in 1986, following a fire involving a 55-gallon drum of apparent waste solvent. Due to the length of operations occurring prior to and following the initial discovery of the contamination, it cannot be determined if releases may have occurred at different times, with different materials, and at different magnitudes.
- Hazardous materials left over from operations at the Property were collected, removed, and transported
  off-Property for disposal at an approved facility by the City in December 2012 and January 2013. All
  known sources of OHM have been removed or eliminated and historical operations and practices are
  no longer active at the Property.
- The former building was demolished in August/September 2013. During demolition activities, PCB-impacts building foundation and soil were encountered and a RAM Plan was prepared to remove the impacted foundation and soil in the top 3 feet to reduce site risks. The RAM was modified to conduct a bench-scale and pilot scale test to evaluate potential options to stabilize leachable lead and chlordane detected in disposal samples.
- During Phase II CSA activities, soil samples were collected from off-Property locations to better define the nature and extent of impacts from historical PDM, Inc. activities. Two off-property location (40 Vernon Street and 500 Congress Street) were approached by the City to collect samples under the Massachusetts Brownfields program. 120-day reporting conditions were identified at 40 Vernon Street and 500 Congress Street. The MassDEP was notified of the 120-day reporting conditions on May 20, 2014 (40 Vernon Street; RTN 3-32188) and September 18, 2014 (500 Congress Street; RTN 3-32443). During soil sampling activities in July 2014, an Imminent Hazard (IH) condition was identified on the 500 Congress Street property. The Trustees of the Medical Office Condominiums reported the IH condition to MassDEP on September 24, 2014 and MassDEP issued RTN 3-32452. The Trustees hired GZA to respond to the IH condition, which consisted on installing a temporary fence and plastic cover around the impacted area.
- PCBs, metals, and petroleum (EPH/VPH) and chlorinated VOCs were detected in disposal site soils.
  The majority of the contamination detected is related to the historic operations at the Property.
  Impacted soils are generally limited to the top 3 feet across the Property with a few exceptions where deeper impacts to the groundwater table were observed. The deepest impacts were identified in AOI #1 (former sump area; approximately 14 feet bgs) and AOI #2 (central yard area; greater than 7 feet bgs).
- Historical fill is present at depths ranging from existing grade to approximately 8 feet bgs at the disposal site. The underlying stratigraphy consists of interbedded sequences of dense silt, and coarse to fine

- sand, which generally grades toward more sand with depth. Organic peat was also observed in several of the soil borings throughout the Property at a depth of approximately 8-15 feet bgs.
- Groundwater is typically encountered at a depth of 5 to 12 feet bgs, with the depth varying seasonally
  and the locations of monitoring wells on top of the fill material that was located below the former
  building. Groundwater flow is generally towards the east and northeast in the approximate direction of
  Town Brook.
- Low concentrations of chlorinated solvents, cadmium, and zinc were detected in groundwater but are not expected to migrate off-Property at significant concentrations above applicable Method 1 RC standards.
- NAPL was not observed in any monitoring wells at the Property.
- The RC concluded that Method 1 RC standards and UCLs were exceeded in soil and/or groundwater.
   Therefore, this condition precludes the achievement of No Significant Risk to Human Health, Public Welfare, and the Environment at the disposal site.
- A condition of No Significant Risk to safety has been achieved at the disposal site.
- Additional Comprehensive Response Actions are required at this disposal site to achieve a Permanent Solution. A Phase III Remedial Action Plan was submitted concurrently with this Phase II CSA Report.

### PHASE III RAP CONCLUSIONS

The retained Remedial Action Alternatives (RAAs) present vastly different approaches to address residual impacts at the disposal site. Some alternatives offer a more "active" or "direct" approach by removing impacted soil while others rely upon institutional controls and chemically altering impacted soil. The potential also exists for residual impacts to remain in the subsurface following implementation due to unforeseen circumstances during excavation, notably that subsurface impacts may extend too far vertically and approximately 8 feet into the water table or off-property below structures. The results from the recent pilot test support the effectiveness of soil fixation/stabilization for RCRA materials (lead) and chlordane-impacted soil and can be used to reduce costs for soil excavation and off-site disposal. Limited options are available for the types of impacts and extents of contamination at this disposal site. Therefore, institutional controls may be necessary to prevent exposures to certain receptors if excavation and soil stabilization activities cannot eliminate risks to residential receptors. Groundwater impacts are limited and are expected to decrease upon removal of impacted vadose zone soil.

Based upon significant experience with the RAAs evaluated in this Phase III RAP, Woodard & Curran anticipates that all three will be the most effective approach for the release of OHM identified at the disposal site. The RAAs were selected based implementability, effectiveness and reliability in reaching a Permanent Solution, as well as the risks, benefits, and timing involved with implementing the RAAs. A Permanent Solution will be achieved relatively quickly upon completion of the approach. A Permanent Solution will be achieved when contaminant concentrations are below risk-based cleanup levels with the implementation of institutional controls (if needed) and a condition of No Significant Risk of harm to human health, public welfare, and the environment is achieved. These RAAs meet the remedial objectives for the disposal site and incorporates a combined source area reduction and beneficial influence on impacted groundwater. This selection was predicated on recent pilot test activities, which demonstrated the applicability and effectiveness of soil fixation/stabilization.

The USEPA intends on conducting a Removal Program to mitigate impacts identified in vadose zone soil, which should eliminate a majority of elevated concentrations of COPCs at the disposal site. USEPA's approach is similar to the RAAs described in this Phase III RAP with the exception of the stabilization/fixation materials. The USEPA is planning on using crystalline permanganate to stabilize metals and chlordane. If additional stabilization is warranted after the Removal Program and funding is available, the City may undertake additional stabilization/fixation activities using cement as summarized in Section 3.4 to achieve a Permanent Solution. Groundwater monitoring will also be performed upon installation of replacement wells after the Removal Program is completed.







October 31, 2014

Mr. Andrew Scheele City of Quincy Board of Health 440 East Squantum Street Quincy, MA 02171

Re: Phase II Comprehensive Site Assessment Report & Phase III Remedial Action Plan

175 & 189 Intervale Street Quincy, Massachusetts

MassDEP Release Tracking Number 3-2524

Dear Mr. Scheele:

This letter is being sent to you to fulfill the public notification requirements established by the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). The public notification provisions of the MCP require that owners of properties located within the disposal site boundary from a release of oil or hazardous material be notified of the submittal of a Phase II Comprehensive Site Assessment (CSA) Report & Phase III Remedial Action Plan (RAP). This letter specifically pertains to the property located 40 Vernon Street in Quincy, Massachusetts which is located within the disposal site boundary associated with a release of oil and hazardous material at the 175 & 189 Intervale Street property in Quincy, Massachusetts. A summary of findings and conclusions for these reports and the Site Plan are attached to this letter for your reference.

A complete copy of the Phase II CSA Report & Phase III RAP will be submitted to the Massachusetts Department of Environmental Protection (MassDEP) Northeast Regional Office (NERO) located at 205B Lowell Street in Wilmington, Massachusetts after November 5, 2014 and may be available for review on the MassDEP file viewer website (<a href="http://public.dep.state.ma.us/wsc\_viewer/main.aspx">http://public.dep.state.ma.us/wsc\_viewer/main.aspx</a>). If it is not available on the MassDEP website, please contact the MassDEP NERO to schedule a file review.

If you have any questions regarding this notification, please feel free to contact me at (978) 557-8150.

Sincerely,

WOODARD & CURRAN INC.

Jarrod Yoder, PG, LSP Project Manager

226332.01

Enclosures: BWSC122

Phase II and Phase III Summary of Findings and Statement of Conclusions

Site Plan

cc: MassDEP - Northeast Regional Office



**ENCLOSURES:** BWSC122

PHASE II & PHASE III SUMMARY OF FINDINGS

AND STATEMENT OF CONCLUSIONS

SITE PLAN



## Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

### BWSC122

This notice is related to: Release Tracking Number

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### **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

As Required by 310 CMR 4	40.1406 of the Massachusetts Contingency Plan (MCP)		
. DISPOSAL SITE ADDRESS: (associated with Release Tracking Number provided above)			
1. Street Address:			
2. City/Town:	3. ZIP Code:		
4. Assessor's Parcel ID:			
B. THIS NOTICE IS BEING PROVIDED TO TH	E FOLLOWING PROPERTY OWNER:		
1. Name of Property Owner:			
	Being Provided: (property owned by person named in B1)		
a. Street Address:			
b. City/Town:	c. ZIP Code:		
3. Assessor's Parcel ID:			
C. THIS NOTICE IS BEING GIVEN: (check on	e)		
1. Upon Completion of a Phase II Comprel	nensive Site Assessment.		
2. Upon Submittal of a Permanent or Temp	porary Solution Statement (i.e., Site Closure Report).		
3. Upon Completion of Additional Investiga	ation showing that Oil or Hazardous Material is not Present at the Property.		
	OUS MATERIAL PRESENT OR LIKELY TO BE PRESENT AT THE PROPERTY :		
(check all that apply) AFFECTED ENVIRONMENTAL MEDIA	PRINCIPAL CHEMICAL(S) PRESENT		
1. Soil			
2. Groundwater			
3. Surface Water			
4. Sediment			
5. Indoor Air			
6. Soil Gas			
7. Other:			
(specify)			
E. ATTACHMENTS PROVIDED WITH THIS NO	OTICE, AS REQUIRED BY 310 CMR 40.1406:		
<ol> <li>1. A Copy of the Map Showing or a Descrip likely to be Present.</li> </ol>	ption Describing the Area where the Oil and/or Hazardous Material is or is		
2. A Copy of the Phase II Comprehensive	Site Assessment or Permanent or Temporary Solution Statement Conclusions.		
3. Specify the category of Solution that app	olies to the Disposal Site.		
1. Permanent Solution with No	Conditions.		
2. Permanent Solution with Con	nditions.		
i. An Activity and Use Lin	nitation has been implemented.		
ii. An Activity and Use Lir	mitation has not been implemented.		
3. Temporary Solution.			

Revised: 5/30/2014 Page 1 of 2



# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

### **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

BWSC12	2	2
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This notice is related to: Release Tracking Number

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-	As Required by 310 CMR 40.1406 of the Massachusetts Contingency Plan (MCP)		
F.	CONTACT INFORMATION RELATING TO THE PARTY PROVID	ING THIS NOTICE:	
1.	Name of Organization:		
2.	Contact First Name:	3. Last Name:	
4.	Street:	5. Title:	
6.	City/Town:	7. State: 8. ZIP Code:	
9.	Telephone:	10. Fmail:	

### MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1406. The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

### THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party(ies) who is/are addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form.

### PURPOSE OF THIS NOTICE

Parties who are taking actions to respond to releases of oil or hazardous material to the environment are required by state regulations (referred to above) to notify the owners of property where the oil or hazardous material is or is likely to be present. These same parties are also required to notify property owners upon completion of actions to address the oil or hazardous material, or if additional investigations show that the oil or hazardous material is not present at a property. **Section C** on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time.

### INFORMATION RELATED TO YOUR PROPERTY

**Section D** on the reverse side of this form indicates the type(s) of oil or hazardous material that is or is likely to be present at your property, and the environmental medium (e.g., soil or groundwater) where it is or is likely to be present. **Please note** that when an investigation indicates that the oil or hazardous material is or is likely to be present at your property, this does not mean that the oil or hazardous material is posing a health risk to you. Parties who are taking actions to address oil and hazardous material releases are required by state regulations to adequately investigate these releases and take necessary actions to ensure that affected properties meet standards that are protective of human health and the environment.

### ATTACHED MAP OR DESCRIPTION AND REPORT CONCLUSIONS

The party providing this notice to you is required to attach a map or description that indicates the boundaries of the area where the oil or hazardous material is or is likely to be present, and the conclusions of the site investigation or closure report (Section E). These attachments should give you additional information about the nature and location of the oil or hazardous material with respect to your property.

### FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <a href="http://www.mass.gov/eea/agencies/massdep/cleanup">http://www.mass.gov/eea/agencies/massdep/cleanup</a>.

For more information regarding this notice, you may contact the party listed in **Section F** of this form. Information about the disposal site identified in **Section A** is also available in files at the Massachusetts Department of Environmental Protection.

See <a href="http://public.dep.state.ma.us/SearchableSites2/Search.aspx">http://public.dep.state.ma.us/SearchableSites2/Search.aspx</a> to view site-specific files on-line or <a href="http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html">http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html</a> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Revised: 5/30/2014 Page 2 of 2

### PHASE II CSA CONCLUSIONS

This section summarizes the findings of the Phase II CSA for 175 & 189 Intervale Street in Quincy, Massachusetts. Historical research and field investigation activities conducted at the disposal site have led to the following conclusions:

- The disposal site, identified as RTN 3-2524 comprises approximately 36,000 square feet (0.83 acres) across 175 & 189 Intervale Street, the paper street, a portion of 500 Congress Street and a portion of 40 Vernon Street in Quincy, Massachusetts.
- Earliest obtainable records indicate that properties at 175 & 189 Intervale Street have been utilized as a junk yard and metal scrapping facility since the early 1940's.
- PDM Metals, Inc. occupied the Property beginning in June 1971 when the land was purchased by Henry P. Gregoire, Trustee of the Gregoire Family Trust. PDM Metals continued operations at the property until the mid-1990's when the Property was abandoned by the Gregoire Family Trust. The property was seized by the City via tax foreclosure in 2009 and has maintained the exempt status under M.G.L. 21E, Section 2.
- The Property was used by PDM Metals for auto salvage, metal scrapping, transformer cutting, manhole
  recoating and general materials storage. Improper procedures and mishandling of materials during
  these former operations are the sources of the conditions of OHM contamination at the Property.
- Potential conditions of OHM contamination were noted by MassDEP (formerly MassDEQE) in 1986, following a fire involving a 55-gallon drum of apparent waste solvent. Due to the length of operations occurring prior to and following the initial discovery of the contamination, it cannot be determined if releases may have occurred at different times, with different materials, and at different magnitudes.
- Hazardous materials left over from operations at the Property were collected, removed, and transported
  off-Property for disposal at an approved facility by the City in December 2012 and January 2013. All
  known sources of OHM have been removed or eliminated and historical operations and practices are
  no longer active at the Property.
- The former building was demolished in August/September 2013. During demolition activities, PCB-impacts building foundation and soil were encountered and a RAM Plan was prepared to remove the impacted foundation and soil in the top 3 feet to reduce site risks. The RAM was modified to conduct a bench-scale and pilot scale test to evaluate potential options to stabilize leachable lead and chlordane detected in disposal samples.
- During Phase II CSA activities, soil samples were collected from off-Property locations to better define the nature and extent of impacts from historical PDM, Inc. activities. Two off-property location (40 Vernon Street and 500 Congress Street) were approached by the City to collect samples under the Massachusetts Brownfields program. 120-day reporting conditions were identified at 40 Vernon Street and 500 Congress Street. The MassDEP was notified of the 120-day reporting conditions on May 20, 2014 (40 Vernon Street; RTN 3-32188) and September 18, 2014 (500 Congress Street; RTN 3-32443). During soil sampling activities in July 2014, an Imminent Hazard (IH) condition was identified on the 500 Congress Street property. The Trustees of the Medical Office Condominiums reported the IH condition to MassDEP on September 24, 2014 and MassDEP issued RTN 3-32452. The Trustees hired GZA to respond to the IH condition, which consisted on installing a temporary fence and plastic cover around the impacted area.
- PCBs, metals, and petroleum (EPH/VPH) and chlorinated VOCs were detected in disposal site soils.
  The majority of the contamination detected is related to the historic operations at the Property.
  Impacted soils are generally limited to the top 3 feet across the Property with a few exceptions where deeper impacts to the groundwater table were observed. The deepest impacts were identified in AOI #1 (former sump area; approximately 14 feet bgs) and AOI #2 (central yard area; greater than 7 feet bgs).
- Historical fill is present at depths ranging from existing grade to approximately 8 feet bgs at the disposal site. The underlying stratigraphy consists of interbedded sequences of dense silt, and coarse to fine

- sand, which generally grades toward more sand with depth. Organic peat was also observed in several of the soil borings throughout the Property at a depth of approximately 8-15 feet bgs.
- Groundwater is typically encountered at a depth of 5 to 12 feet bgs, with the depth varying seasonally
  and the locations of monitoring wells on top of the fill material that was located below the former
  building. Groundwater flow is generally towards the east and northeast in the approximate direction of
  Town Brook.
- Low concentrations of chlorinated solvents, cadmium, and zinc were detected in groundwater but are not expected to migrate off-Property at significant concentrations above applicable Method 1 RC standards.
- NAPL was not observed in any monitoring wells at the Property.
- The RC concluded that Method 1 RC standards and UCLs were exceeded in soil and/or groundwater.
   Therefore, this condition precludes the achievement of No Significant Risk to Human Health, Public Welfare, and the Environment at the disposal site.
- A condition of No Significant Risk to safety has been achieved at the disposal site.
- Additional Comprehensive Response Actions are required at this disposal site to achieve a Permanent Solution. A Phase III Remedial Action Plan was submitted concurrently with this Phase II CSA Report.

### PHASE III RAP CONCLUSIONS

The retained Remedial Action Alternatives (RAAs) present vastly different approaches to address residual impacts at the disposal site. Some alternatives offer a more "active" or "direct" approach by removing impacted soil while others rely upon institutional controls and chemically altering impacted soil. The potential also exists for residual impacts to remain in the subsurface following implementation due to unforeseen circumstances during excavation, notably that subsurface impacts may extend too far vertically and approximately 8 feet into the water table or off-property below structures. The results from the recent pilot test support the effectiveness of soil fixation/stabilization for RCRA materials (lead) and chlordane-impacted soil and can be used to reduce costs for soil excavation and off-site disposal. Limited options are available for the types of impacts and extents of contamination at this disposal site. Therefore, institutional controls may be necessary to prevent exposures to certain receptors if excavation and soil stabilization activities cannot eliminate risks to residential receptors. Groundwater impacts are limited and are expected to decrease upon removal of impacted vadose zone soil.

Based upon significant experience with the RAAs evaluated in this Phase III RAP, Woodard & Curran anticipates that all three will be the most effective approach for the release of OHM identified at the disposal site. The RAAs were selected based implementability, effectiveness and reliability in reaching a Permanent Solution, as well as the risks, benefits, and timing involved with implementing the RAAs. A Permanent Solution will be achieved relatively quickly upon completion of the approach. A Permanent Solution will be achieved when contaminant concentrations are below risk-based cleanup levels with the implementation of institutional controls (if needed) and a condition of No Significant Risk of harm to human health, public welfare, and the environment is achieved. These RAAs meet the remedial objectives for the disposal site and incorporates a combined source area reduction and beneficial influence on impacted groundwater. This selection was predicated on recent pilot test activities, which demonstrated the applicability and effectiveness of soil fixation/stabilization.

The USEPA intends on conducting a Removal Program to mitigate impacts identified in vadose zone soil, which should eliminate a majority of elevated concentrations of COPCs at the disposal site. USEPA's approach is similar to the RAAs described in this Phase III RAP with the exception of the stabilization/fixation materials. The USEPA is planning on using crystalline permanganate to stabilize metals and chlordane. If additional stabilization is warranted after the Removal Program and funding is available, the City may undertake additional stabilization/fixation activities using cement as summarized in Section 3.4 to achieve a Permanent Solution. Groundwater monitoring will also be performed upon installation of replacement wells after the Removal Program is completed.







October 31, 2014

Mayor Thomas P. Koch City of Quincy – City Hall 1305 Hancock Street Quincy, MA 02169

Re: Phase II Comprehensive Site Assessment Report & Phase III Remedial Action Plan

175 & 189 Intervale Street Quincy, Massachusetts

MassDEP Release Tracking Number 3-2524

### Dear Mayor Koch:

This letter is being sent to you to fulfill the public notification requirements established by the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). The public notification provisions of the MCP require that owners of properties located within the disposal site boundary from a release of oil or hazardous material be notified of the submittal of a Phase II Comprehensive Site Assessment (CSA) Report & Phase III Remedial Action Plan (RAP). This letter specifically pertains to the property located 40 Vernon Street in Quincy, Massachusetts which is located within the disposal site boundary associated with a release of oil and hazardous material at the 175 & 189 Intervale Street property in Quincy, Massachusetts. A summary of findings and conclusions for these reports and the Site Plan are attached to this letter for your reference.

A complete copy of the Phase II CSA Report & Phase III RAP will be submitted to the Massachusetts Department of Environmental Protection (MassDEP) Northeast Regional Office (NERO) located at 205B Lowell Street in Wilmington, Massachusetts after November 5, 2014 and may be available for review on the MassDEP file viewer website (<a href="http://public.dep.state.ma.us/wsc\_viewer/main.aspx">http://public.dep.state.ma.us/wsc\_viewer/main.aspx</a>). If it is not available on the MassDEP website, please contact the MassDEP NERO to schedule a file review.

If you have any questions regarding this notification, please feel free to contact me at (978) 557-8150.

Sincerely,

WOODARD & CURRAN INC.

Jarrod Yoder, PG, LSP Project Manager

226332.01

Enclosures: BWSC122

Phase II and Phase III Summary of Findings and Statement of Conclusions

Site Plan

cc: MassDEP - Northeast Regional Office



**ENCLOSURES:** BWSC122

PHASE II & PHASE III SUMMARY OF FINDINGS

AND STATEMENT OF CONCLUSIONS

SITE PLAN



## Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

### BWSC122

This notice is related to: Release Tracking Number

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# **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

As Required by 310 CMR 4	40.1406 of the Massachusetts Contingency Plan (MCP)		
. DISPOSAL SITE ADDRESS: (associated with Release Tracking Number provided above)			
1. Street Address:			
2. City/Town:	3. ZIP Code:		
4. Assessor's Parcel ID:			
B. THIS NOTICE IS BEING PROVIDED TO TH	HE FOLLOWING PROPERTY OWNER:		
	IL I OLLOWING I KOI EKT I OWNEK.		
	s Being Provided: (property owned by person named in B1)		
a. Street Address:			
b. City/Town:	c. ZIP Code:		
3. Assessor's Parcel ID:			
C. THIS NOTICE IS BEING GIVEN : (check or	ne)		
1. Upon Completion of a Phase II Compre	·		
2. Upon Submittal of a Permanent or Tem	porary Solution Statement (i.e., Site Closure Report).		
3. Upon Completion of Additional Investiga	ation showing that Oil or Hazardous Material is not Present at the Property.		
D. DESCRIPTION OF OIL AND/OR HAZARDO	OUS MATERIAL PRESENT OR LIKELY TO BE PRESENT AT THE PROPERTY :		
(check all that apply)			
AFFECTED ENVIRONMENTAL MEDIA	PRINCIPAL CHEMICAL(S) PRESENT		
1. Soil			
2. Groundwater			
3. Surface Water			
4. Sediment			
5. Indoor Air			
6. Soil Gas			
7. Other:			
(specify)			
E. ATTACHMENTS PROVIDED WITH THIS N	OTICE, AS REQUIRED BY 310 CMR 40.1406:		
<ul> <li>1. A Copy of the Map Showing or a Descri likely to be Present.</li> </ul>	iption Describing the Area where the Oil and/or Hazardous Material is or is		
2. A Copy of the Phase II Comprehensive	Site Assessment or Permanent or Temporary Solution Statement Conclusions.		
3. Specify the category of Solution that ap	plies to the Disposal Site.		
1. Permanent Solution with No	o Conditions.		
2. Permanent Solution with Co	onditions.		
i. An Activity and Use Lin	mitation has been implemented.		
ii. An Activity and Use Lii	mitation has not been implemented.		
3. Temporary Solution.			

Revised: 5/30/2014 Page 1 of 2



# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

### **INFORMATIONAL NOTICE TO PROPERTY OWNERS**

BWSC12	2	2
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This notice is related to: Release Tracking Number

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-	As Required by 310 CMR 40.1406 of the Massachusetts Contingency Plan (MCP)		
F.	CONTACT INFORMATION RELATING TO THE PARTY PROVID	ING THIS NOTICE:	
1.	Name of Organization:		
2.	Contact First Name:	3. Last Name:	
4.	Street:	5. Title:	
6.	City/Town:	7. State: 8. ZIP Code:	
9.	Telephone:	10. Fmail:	

### MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1406. The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

### THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party(ies) who is/are addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form.

### PURPOSE OF THIS NOTICE

Parties who are taking actions to respond to releases of oil or hazardous material to the environment are required by state regulations (referred to above) to notify the owners of property where the oil or hazardous material is or is likely to be present. These same parties are also required to notify property owners upon completion of actions to address the oil or hazardous material, or if additional investigations show that the oil or hazardous material is not present at a property. **Section C** on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time.

### INFORMATION RELATED TO YOUR PROPERTY

**Section D** on the reverse side of this form indicates the type(s) of oil or hazardous material that is or is likely to be present at your property, and the environmental medium (e.g., soil or groundwater) where it is or is likely to be present. **Please note** that when an investigation indicates that the oil or hazardous material is or is likely to be present at your property, this does not mean that the oil or hazardous material is posing a health risk to you. Parties who are taking actions to address oil and hazardous material releases are required by state regulations to adequately investigate these releases and take necessary actions to ensure that affected properties meet standards that are protective of human health and the environment.

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Revised: 5/30/2014 Page 2 of 2

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  and the locations of monitoring wells on top of the fill material that was located below the former
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# APPENDIX B PHASE 1 SITE ASSESSMENT MAP

# MassDEP - Bureau of Waste Site Cleanup Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

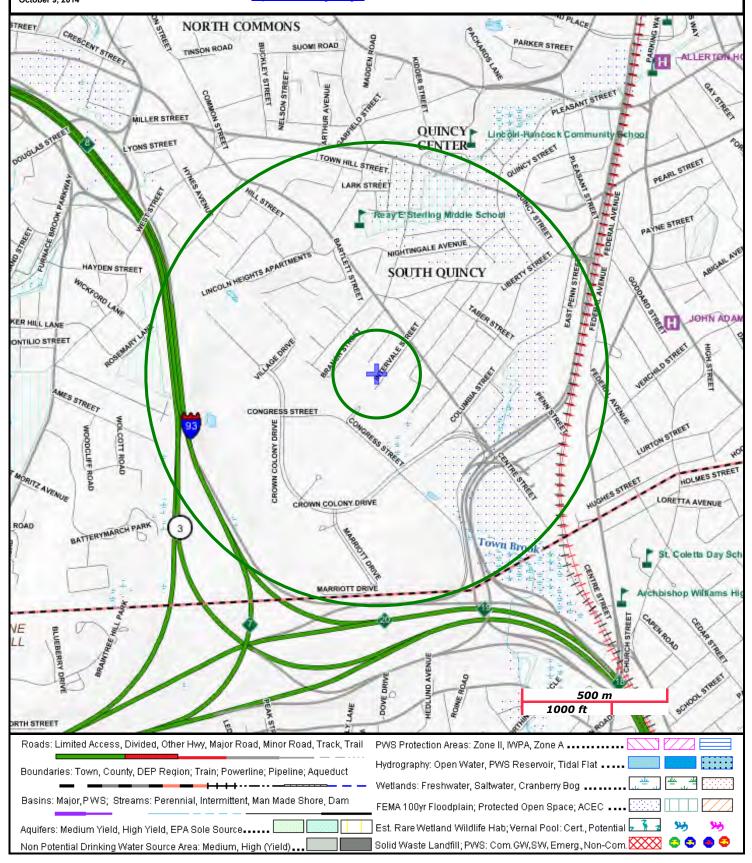
### Site Information:

175 & 189 INTERVALE STREET QUINCY, MA

NAD83 UTM Meters: 4677880mN , 333745mE (Zone: 19) October 9, 2014 The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at:

http://www.mass.gov/mgis/.







# APPENDIX C ANALYTICAL LABORATORY REPORTS AND DATA VALIDATION SUMMARIES



### United States Environmental Protection Agency Office of Environmental Measurement & Evaluation 11 Technology Drive North Chelmsford, MA 01863-2431

Laboratory Report

July 27, 2012

Brent England - Mail Code OSRR02-2 US EPA New England R1

Project Number: 12070007

Project: Intervale Street Site - Quincy, MA

Analysis: PCBs Medium Level in Soils and Sediments

Analyst: Paul Carroll

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, PESTSOIL3.SOP.

The SOP is based on EPA SW-846 Method 8082

The analysis was performed using high resolution capillary column chromatography on an Agilent 6890 Series gas chromatograph equipped with dual electron capture detectors. The 30 meter dual capillary column system consists of a J&W DB-5 and J&W DB-1701, both with 0.25mm ID and 0.25 micron film thickness.

The results are reported on a dry weight basis. Date Samples Received by the Laboratory: 07/06/2012

Data were reviewed in accordance with the internal verification procedures described in the EPA New England OEME Chemistry QA Plan.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Report may contain multiple sections and each section will be numbered independently.

If you have any questions please call me at 617-918-8340.

Sincerely

Mulean 7/31/12 Chemistry Team Leader

Qualifiers: RL Reporting limit

ND Not Detected above Reporting limit

NA Not Applicable due to high sample dilutions or sample interferences

J Estimated value

E Estimated value exceeds the calibration range

L Estimated value is below the calibration range

Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.

P The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

C The identification has been confirmed by GC/MS.

R No recovery was calculated since the analyte concentration is greater than four times the spike level.

### Intervale Street Site - Quincy, MA

### PCBs Medium Level in Solls and Sediments

Client Sample ID:

R01-120705BE-0001

Lab Sample ID:

AB30998

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

92%

Dry Weight Extracted: 6.07 grams

Extract Dilution: 5

Wet Weight Extracted: 6.60 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.41	
11104-28-2	Aroclor-1221	ND	0.41	
11141-16-5	Aroclor-1232	ND	0.41	
53469-21-9	Aroclor-1242	ND	0.41	
12672-29-6	Aroclor-1248	ND	0.41	
11097-69-1	Aroclor-1254	ND	0.41	
11096-82-5	Aroclor-1260	1.4	0.41	
11100-14-4	Aroclor-1262	ND	0.41	
37324-23-5	Aroclor-1268	ND	0.41	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	80	36 - 131
Decachlorobiphenyl	115	30 - 165

### Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0002

Lab Sample ID:

AB30999

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

88%

Extract Dilution: 5, 1

Dry Weight Extracted: 5.43 grams

Wet Weight Extracted: 6.19 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.46	
11104-28-2	Aroclor-1221	ND	0.46	
11141-16-5	Aroclor-1232	ND	0.46	
53469-21-9	Aroclor-1242	ND	0.46	
12672-29-6	Aroclor-1248	ND	0.46	
11097-69-1	Aroclor-1254	0.75	0.46	
11100-14-4	Aroclor-1262	ND	0.46	
37324-23-5	Aroclor-1268	ND	0.46	
11096-82-5	Aroclor-1260	0.79	0.09	

	······································	
Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	82	36 - 131
Decachlorobiphenyl	106	30 - 165

### Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soiis and Sediments

Client Sample ID:

R01-120705BE-0003

Lab Sample ID:

AB31000

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL 89%

Date of Analysis:

7/17/12

Percent Solids:

Dry Weight Extracted: 5.52 grams

Extract Dilution: 1

Wet Weight Extracted: 6.20 grams

CAS Number	Сотроинд	Concentration mg/Kg	RL mg/Kg	Quaiifier
12674-11-2	Aroclor-1016	ND	0.10	
i1104-28-2	Aroclor-1221	ND	0.10	
11141-16-5	Arocior-1232	ND	0.10	
53469-21-9	Aroclor-1242	ND	0.10	
12672-29-6	Arocior-1248	ND	0.10	
11097-69-1	Aroclor-1254	ND	0.10	
11096-82-5	Aroclor-1260	ND	0.10	
11100-14-4	Aroclor-1262	ND	0.10	
37324-23-5	Aroclor-1268	ND	0.10	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	79	36 - 131
Decachlorobiphenyl	89	30 - 165

### Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soils and Sediments

Client Sample 1D:

R01-120705BE-0004

Lab Sample ID:

AB31001

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

5 mL

Date of Analysis:

Final Volume:

93%

7/23/12

Percent Solids:

Extract Dilution: 10, 2

Dry Weight Extracted: 5.616 grams

Wet Weight Extracted: 6.051 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND		<u> </u>
11104-28-2	Aroclor-1221		0.89	
11141-16-5	Aroclor-1232	ND	0.89	
53469-21-9	Aroclor-1242	ND	0.89	
12672-29-6	Aroclor-1248	ND	0.89	
11097-69-1		ND	0.89	
	Aroclor-1254	4.5	0.89	
11100-14-4	Aroclor-1262	ND	0.89	
37324-23-5	Aroclor-1268	ND	0.89	
11096-82-5	Aroclor-1260	1.5	0.18	

Surrogate Compounds	Recoveries (%)	QC Ranges	
2,4,5,6-Tetrachloro-m-xylene	81	36 - 131	
Decachlorobiphenyl	109	30 - 165	ı

### Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0005

Lab Sample ID:

AB31002

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

90%

Dry Weight Extracted: 5.70 grams

Extract Dilution: 5

Wet Weight Extracted: 6.30 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.44	
11104-28-2	Aroclor-1221	ND	0.44	
11141-16-5	Aroclor-1232	ND	0.44	
53469-21-9	Aroclor-1242	ND	0.44	
12672-29-6	Aroclor-1248	ND	0.44	
11097-69-1	Aroclor-1254	3.7	0.44	
11096-82-5	Aroclor-1260	1.6	0.44	
11100-14-4	Aroclor-1262	ND	0.44	
37324-23-5	Aroclor-1268	ND	0.44	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	88	36 - 131
Decachlorobiphenyl	113	30 - 165

### Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0006

Lab Sample ID:

AB31003

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

5 mL

Date of Analysis:

7/17/12

Final Volume:

92%

Dry Weight Extracted: 6.01 grams

Percent Solids:

Wet Weight Extracted

Extract Dilution: 10, 5

AA CL	M CIRTIE	Extracted:	6.54	grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.83	
11104-28-2	Aroclor-1221	ND	0.83	
11141-16-5	Aroclor-1232	ND	0.83	
53469-21-9	Aroclor-1242	ND	0.83	
12672-29-6	Aroclor-1248	ND	0.83	
11097-69-1	Aroclor-1254	6.0	0.83	
11100-14-4	Aroclor-1262	ND	0.83	
37324-23-5	Aroclor-1268	ND	0.83	
11096-82-5	Aroclor-1260	1.5	0.42	

Surrogate Compounds	Recoveries (%)	OC Ranges	
2,4,5,6-Tetrachloro-m-xylene	82	36 - 131	
Decachlorobiphenyl	104	30 - 165	•

### Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soils and Sediments

Client Sample 1D:

R01-120705BE-0007

Lab Sample ID:

AB31004

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL 92%

Date of Analysis:

Percent Solids:

7/17/12 Dry Weight Extracted: 5.71 grams

Extract Dilution: 1

Wet Weight Extracted: 6.24 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.10	
11104-28-2	Aroclor-1221	ND	0.10	
11141-16-5	Aroclor-1232	ND	0.10	
53469-21-9	Aroclor-1242	ND	0.10	
12672-29-6	Aroclor-1248	ND	0.10	
11097-69-1	Aroclor-1254	ND	0.10	
11096-82-5	Aroclor-1260	ND	0.10	
11100-14-4	Aroclor-1262	ND	0.10	
37324-23-5	Aroclor-1268	ND	0.10	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	68	36 - 131
Decachlorobiphenyl	90	30 - 165

## Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0008

Lab Sample ID:

AB31005

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

87%

Dry Weight Extracted: 5.29 grams

Wet Weight Extracted: 6.08 grams

Extract Dilution: 5,1

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.47	
11104-28-2	Aroclor-1221	ND	0.47	
11141-16-5	Aroclor-1232	ND	0.47	
53469-21-9	Aroclor-1242	ND	0.47	
12672-29-6	Aroclor-1248	ND	0.47	
11097-69-1	Aroclor-1254	0.60	0.47	P
11100-14-4	Aroclor-1262	ND	0.47	
37324-23-5	Aroclor-1268	ND	0.47	
11096-82-5	Aroclor-1260	0.45	0.09	

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Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	65	36 - 131
Decachlorobiphenyl	107	30 - 165

## Intervale Street Site - Quincy, MA

## PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0009

Lab Sample ID:

AB31006

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

92%

Dry Weight Extracted: 5.67 grams

Extract Dilution: 1

Wet Weight Extracted: 6.13 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.09	
11104-28-2	Aroclor-1221	ND	0.09	
11141-16-5	Aroclor-1232	ND	0.09	
53469-21-9	Aroclor-1242	ND	0.09	
12672-29-6	Aroclor-1248	ND	0.09	
11097-69-1	Aroclor-1254	0.62	0.09	
11096-82-5	Aroclor-1260	0.42	0.09	
11100-14-4	Aroclor-1262	ND	0.09	
37324-23-5	Aroclor-1268	ND	0.09	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	71	36 - 1 <b>3</b> 1
Decachlorobiphenyl	84	30 - 165

## Intervale Street Site - Quincy, MA

## PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0010

Lab Sample ID:

AB31007

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

Percent Solids:

1.00

81%

Dry Weight Extracted: 5.22 grams

7/17/12

Extract Dilution: 20, 10

Wet Weight Extracted: 6.44 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	1.90	
11104-28-2	Aroclor-1221	•		
11141-16-5		ND	1.90	
	Aroclor-1232	ND	1.90	
53469-21-9	Aroclor-1242	ND	1.90	
12672-29-6	Aroclor-1248	ND	1.90	
11097-69-1	Aroclor-1254			
11100-14-4		5.4	1.90	
	Aroclor-1262	ND	1.90	
37324-23-5	Aroclor-1268	ND	1.90	
11096-82-5	Aroclor-1260	40	1.50	

Surrogate Compounds 2,4,5,6-Tetrachloro-m-xylene	Recoveries (%)	QC Ranges 36 - 131	
Decachlorobiphenyl	115	30 - 165	

4.9

## Intervale Street Site - Quincy, MA

### PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0012

Lab Sample ID:

AB31008

Date of Collection:

7/5/2012

Matrix

Soil

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

90%

Dry Weight Extracted: 6.18 grams

Extract Dilution: 20, 10

Wet Weight Extracted: 6.89 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	1.60	
11104-28-2	Aroclor-1221	ND	1.60	
11141-16-5	Aroclor-1232	ND	1.60	
53469-21-9	Aroclor-1242	ND	1.60	
12672-29-6	Aroclor-1248	ND	1.60	
11097-69-1	Aroclor-1254	3.9	1.60	
11100-14-4	Aroclor-1262	ND	1.60	
37324-23-5	Aroclor-1268	ND	1.60	
11096-82-5	Aroclor-1260	1.9	0.80	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	78	36 - 131
Decachlorobiphenyl	109	30 - 165

## Intervale Street Site - Quincy, MA

## PCBs Medium Level in Soils and Sediments

Client Sample ID:

R01-120705BE-0013

Lab Sample ID:

AB31009

Date of Collection:

7/5/2012

Matrix

Lab Sand

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

100%

Dry Weight Extracted: 5.00 grams

Extract Dilution: 1

Wet Weight Extracted: 5.00 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.10	
11104-28-2	Aroclor-1221	ND	0.10	
11141-16-5	Aroclor-1232	ND	0.10 0.10	
53469-21-9	Aroclor-1242	ND	0.10	
12672-29-6	Aroclor-1248	ND	0.10	
11097-69-1	Aroclor-1254	0.28	<del>-</del> -	
11096-82-5	Aroclor-1260	ND	0.10	
11100-14-4	Aroclor-1262	ND ND	0.10	
37324-23-5	Aroclor-1268	ND ND	0.10 0.10	

Surrogate Compounds	Recoveries (%)	QC Ranges	1
2,4,5,6-Tetrachloro-m-xylene	80	36 - 131	
Decachlorobiphenyl	96	30 - 165	l

## Intervale Street Site - Quincy, MA Laboratory Blank

Client Sample ID:

N/A

Lab Sample ID:

N/A

Date of Collection:

N/A

Matrix

Lab Sand

Date of Extraction:

7/9/12

Final Volume:

5 mL

Date of Analysis:

7/17/12

Percent Solids:

100%

Dry Weight Extracted: 5.02 grams

Extract Dilution: 1

Wet Weight Extracted: 5.02 grams

CAS Number	Compound	Concentration mg/Kg	RL mg/Kg	Qualifier
12674-11-2	Aroclor-1016	ND	0.10	
11104-28-2	Aroclor-1221	ND	0.10	
11141-16-5	Aroclor-1232	ND	0.10	
53469-21-9	Aroclor-1242	ND	0.10	
12672-29-6	Aroclor-1248	ND	0.10	
11097-69-1	Aroclor-1254	ND	0.10	
11096-82-5	Aroclor-1260	ND	0.10	
11100-14-4	Aroclor-1262	ND	0.10	
37324-23-5	Aroclor-1268	ND	0.10	

Surrogate Compounds	Recoveries (%)	QC Ranges
2,4,5,6-Tetrachloro-m-xylene	84	<b>36 -</b> 1 <b>31</b>
Decachlorobiphenyl	105	30 - 165

## PCB MATRIX SPIKE (MS) / MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Intervale Street Site - Quincy, MA Sample ID: AB30999

PARAMETER	SPIKE	SAMPLE	MS	MS	QC
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
	mg/Kg	mg/Kg	mg/Kg	REC	(% REC)
Aroclor-1254	0.55	0.75	1.56	147.27	70 - 130

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION mg/Kg	MSD % REC	RPD %	QC LIMITS RPD
Arocior-1254	0.55	1.18	78.18	61	50

Samples in Batch: AB30998, AB30999, AB31000, AB31001, AB31002, AB31003, AB31004, AB31005, AB31006, AB31007, AB31008, AB31009

Comments: Matrix Spike recoveries and relative percent difference (RPD) were high due to the presence of the spiked analyte in the sample.

## LABORATORY DUPLICATE RESULTS

Intervale Street Site - Quincy, MA

Sample ID: AB30999

PARAMETER	SAMPLE RESULT mg/Kg	SAMPLE DUPLICATE RESULT mg/Kg	PRECISION RPD %	QC LIMITS
Aroclor-1016	ND	ND	ND	50
Aroclor-1221	ND	ND	ND	50
Aroclor-1232	ND	ND	ND	50
Aroclor-1242	ND	ND	ND	50
Aroclor-1248	ND	ND	ND	50
Aroclor-1254	0.75	0.87	15	50
Aroclor-1260	0.79	0.69	14	50
Aroclor-1262	ND	ND	ND ·	50
Aroclor-1268	ND	ND	ND	50

## LABORATORY FORTIFIED BLANK (LFB) RECOVERY

Intervale Street Site - Quincy, MA

COMPOUND	SPIKE	LFB	LFB	QC
	ADDED	CONCENTRATION	RECOVERY	LIMITS
	mg/Kg	mg/Kg	%	(% REC)
Aroclor-1254	0.60	0.63	105	70 - 130



### United States Environmental Protection Agency Office of Environmental Measurement & Evaluation 11 Technology Drive North Chelmsford, MA 01863-2431

## Laboratory Report

July 20, 2012

Brent England - Mail Code OSRR02-2 US EPA New England R1

Project Number: 12070007

Project:

Intervale Street Site - Quincy, MA

Analysis:

EPA Chemist:

Metals in Soil Medium Level by ICP
Michael Dowling

| For MO 7 3 0 12

## Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Samples were analyzed following the EPA Region I SOP, EIASOP-INGDVICP1.

Samples were prepared following the EPA Region I SOP, EIASOP-INGMETALSPREP7

Preparation and analysis SOP's are based on "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, Revision 2, Final Update III, Methods 3050B and 6010B," respectively. Samples were analyzed using a Perkin Elmer 4300 Dual View Inductively Coupled Plasma - Optical Emission Spectrometer.

Samples were prepared and analyzed by ESAT contractors working at the USEPA New England Laboratory.

Date Samples Received by the Laboratory: 07/06/2012

Data were reviewed in accordance with the internal verification procedures described in the EPA New England OEME Chemistry QA Plan.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Report may contain multiple sections and each section will be numbered independently.

If you have any questions please call me at 617-918-8340

Sincerely,

Burhean 7/30/12 Chemistry Team Leader

## Laboratory Qualifiers:

RL	Reporting limit
ND	Not Detected above reporting limit
NA	Not Applicable
NC	Not calculated since analyte concentration is ND
J1	Estimated value due to MS recovery outside accceptance criteria
J2	Estimated value due to LFB result outside acceptance criteria
J3	Estimated value due to RPD result outside acceptance criteria
J4	Estimated value due to LCS result outside acceptance criteria
В	Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R	No recovery was calculated since the analyte concentration is greater than four times the spike level.

All sample results, except the results for sample AB31010, are reported in mg/Kg, dry weight basis. The results for sample AB31010 are reported as received, in mg/Kg.

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0001

Lab Sample ID:

AB30998

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

7/13/2012

Digestate Dilution: 3

Volume Digested:

N/A

pH:

N/A

	<b>T</b>	Concentration	RL	Qualifier
CAS Number	Parameter	mg/Kg	mg/Kg	Quantier
7429-90-5	Alu <b>minu</b> m	5700	32	
7440-36-0	Antimony	ND	5.9	
7440-38-2	Arsenic	8.9	5.9	
7440-39-3	Barium	1500	5.9	
7440-41-7	Beryllium	ND	2.4	
7440-43-9	Cadmium	6.3	2.9	
7440-70-2	Calcium	2700	29	
7440-47-3	Chromium	120	5.9	JI
7440-48-4	Cobalt	ND	5,9	
7440-50-8	Copper	3200	5.9	
7439-89-6	lron	54000	12	
7439-92-1	Lead	3200	5.9	
7439-95-4	Magnesium	2400	29	
7439-96-5	Manganese	790	5.9	
7440-02-0	Nickel	110	5.9	
7782-49-2	Selenium	ND	12	
7440-22-4	Silver	ND	2.9	
7440-28-0	Thallium	ND	5.9	
7440-62-2	Vanadium	28	5.9	
7440-66-6	Zinc	1100	5.9	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0002

Lab Sample ID:

AB30999

Date of Collection:

7/5/2012

Matrix

Soil '

Date of Digestion:

7/10/2012

MIGHT

50 mL

Date of Analysis:

7/13/2012

Final Volume: 56
Digestate Dilution: 1

pH:

N/A

Volume Digested:

N/A

CAS Number	Parameter	Concentration	RL	Ovalifian
·		mg/Kg	mg/Kg	Qualifier
7429-90-5	Aluminum	12000	11	
7440-36-0	Antimony	3.2	2.0	
<b>7440-38-</b> 2	Arsenic	11	2.0	
7440-39-3	Barium	260	2.0	Ј3
7440-41-7	Beryllium	ND	0.78	
7440-43-9	Cadmium	5.0	0.98	
7440-70-2	Calcium	5900	9.8	
7440-47-3	Chromium	110	2.0	
7440-48-4	Cobalt	9.0	2.0	
7440-50-8	Copper	580	2.0	
7439-89-6	Iron	29000	3.9	
7439-92-1	Lead	1100	2.0	
7439-95-4	Magnesium	3200	9.8	•
7439-96-5	Manganese	550	2.0	
7440-02-0	Nickel	93	2.0	
7782-49-2	Selenium	ND	3.9	
7440-22-4	Silver	0.99	0.98	Ј3
7440-28-0	Thallium	2.5	2.0	
7440-62-2	Vanadium	42	2.0	
7440-66-6	Zinc	1200	2.0	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID: R

R01-120705BE-0003

Lab Sample ID:

AB31000

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

\_\_\_\_\_

Digestate Dilution: 1

בנווו טכ

Volume Digested:

7/13/2012

N/A

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	7600	11	
7440-36-0	Antimony	ND	1.9	
7440-38-2	Arsenic	4.9	1.9	
7440-39-3	Barium	42	1.9	
7440-41-7	Beryllium	ND	0.77	
7440-43-9	Cadmium	ND	0.96	
7440-70-2	Calcium	2900	9.6	
7440-47-3	Chromium	14	1.9	
7440-48-4	Cobalt	4.1	1.9	
7440-50-8	Copper	35	1.9	
7439-89-6	lron	12000	3.8	
7439-92-1	Lead	98	1.9	
7439-95-4	Magnesium	2000	9.6	
7439-96-5	Manganese	240	1.9	
7440-02-0	Nickel	13	1.9	
7782-49-2	Selenium	ND	3.8	
7440-22-4	Silver	ND	0.96	
7440-28-0	Thallium	2.6	1.9	
7440-62-2	Vanadium	33	1.9	
7440-66-6	Zinc	88	1.9	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0004

Lab Sample ID: Al

Date of Collection:

7/5/2012

Jab Campic

AB31001

m. cmi .i

Matrix

Soil 50 mL

Date of Digestion:

7/10/2012

Final Volume:

Digestate Dilution: 5

Date of Analysis: Volume Digested: 7/13/2012

N/A

pH:

N/À

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	10000	55	
7440-36-0	Antimony	ND	10	
7440-38-2	Arsenic	16	10	
7440-39-3	Barium	410	10	
7440-41-7	Beryllium	ND	4.0	
7440-43-9	Cadmium	7.5	5.0	
7440-70-2	Calcium	5900	50	
7440-47-3	Chromium	340	10	
7440-48-4	Cobalt	14	10	
7440-50-8	Copper	1500	10	
7439-89-6	Iron	100000	20	
7439-92-1	Lead	1300	10	
7439-95-4	Magnesium	3400	50	
7439-96-5	Manganese	1200	10	
7440-02-0	Nickel	270	10	
7782-49-2	Selenium	ИD	20	
7440-22-4	Silver	ND	5.0	
7440-28-0	Thallium	ND	10	
7440-62-2	Vanadium	130	10	
7440-66-6	Zinc	1900	10	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0005

Lab Sample ID:

AB31002

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

7/13/2012

Digestate Dilution: 4

Volume Digested:

N/A

pH:

N/A

		Concentration	RL	Qualifier
CAS Number	Parameter	mg/Kg	mg/Kg	Quanner
7429-90-5	Aluminum	8700	44	
7440-36-0	Antimony	ND	8.0	
7440-38-2	Arsenic	36	8.0	
7440-39-3	Barium	290	8.0	
7440-41-7	Beryllium .	ND	3.2	
7440-43-9	Cadmium	6.0	4.0	
7440-70 <b>-</b> 2	Calcium	3500	40	
7440-47-3	Chromium	190	8.0	
7440-48-4	Cobalt	12	8.0	
7440-50-8	Copper	710	8.0	
7439-89-6	Iron	71000	16	
7439-92-1	Lead	810	8.0	
7439-95-4	Magnesium	3000	40	
7439-96-5	Manganese	750	8.0	
7440-02-0	Nickel	160	8.0	
7782-49-2	Selenium	ND	16	
7440-22-4	Silver	ND	4.0	
7440-28-0	Thallium	ND	8.0	
7440-62-2	Vanadium	71	8.0	
7440-66-6	Zinc	1500	8.0	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0006

Lab Sample ID:

AB31003

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

5.9

5.9

50 mL

Date of Analysis: Volume Digested: 7/13/2012

Vanadium

Zinc

N/A

Digestate Dilution: 3

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	. Qualifier
7429-90-5	Aluminum	7700	32	
7440-36-0	Antimony	ND	5.9	
7440-38-2	Arsenic	8.0	5.9	
7440-39-3	Barium	160	5.9	
7440-41-7	Beryllium	ND	2.4	
7440-43-9	Cadmium	ND	2.9	
7440-70-2	Calcium	12000	29	
7440-47-3	Chromium	100	5.9	
7440-48-4	Cobalt	7.3	5.9	
7440-50-8	Copper	540	5.9	
7439-89-6	lron	42000	12	
7439-92-1	Lead	490	5 <i>.</i> 9	
7439 <b>-</b> 95-4	Magnesium	3000	29	
7439-96-5	Manganese	580	5.9	
7440-02-0	Nickel	81	5.9	
7782-49-2	Selenium	ND	12	
7440-22-4	Silver	ND	2.9	
7440-28-0	Thallium	ND	5.9	

50

710

Comments:

7440-62-2

7440-66-6

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0007

Lab Sample ID:

AB31004

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

7/13/2012

Digestate Dilution: 1

Volume Digested:

N/A

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	12000	11	
7440-36-0	Antimony	ND	1.9	
7440-38-2	Arsenic	3.9	1.9	
7440-39-3	Barium	23	1.9	
7440-41-7	Beryllium	ND	0.77	
7440-43-9	Cadmium	ND	0.96	
7440-70-2	Calcium	1100	9.6	
7440-47-3	Chromium	14	1.9	
7440-48-4	Cobalt	4.6	1.9	
7440-50-8	Copper	8.9	1.9	
7439-89-6	Iron	15000	3.8	
<b>7439-92-</b> 1	Lead	18	1.9	
7439-95-4	Magnesium	2300	9.6	
7439-96-5	Manganese	230	1.9	
7440-02-0	Nickel	<b>7.5</b>	1.9	
7782-49-2	Selenium	ND	3.8	
7440-22-4	Silver	ND	0.96	
7440-28-0	Thallium	2.7	1.9	
7440-62-2	Vanadium	26	1.9	
7440-66-6	Zinc	40	1.9	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample 1D:

R01-120705BE-0008

Lab Sample ID:

AB31005

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

7/13/2012

Digestate Dilution: 1

Volume Digested:

N/A

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	7000	11	
7440-36-0	Antimony	ND	2.0	
7440-38-2	Arsenic	4.6	2.0	
7440-39-3	Barium	63	2.0	
7440-41-7	Beryllium	ND	0.78	
7440-43-9	Cadmium	1.1	0.98	
7440-70-2	Calcium	7400	9.8	
7440-47-3	Chromium	87	2.0	
7440-48-4	Cobalt	7.4	2.0	
7440-50-8	Copper	420	2.0	
7439-89-6	Iron	27000	3.9	
7439-92-1	Lead	240	2.0	
7439-95-4	Magnesium	3100	9.8	
7439-96-5	Manganese	430	2.0	
7440-02-0	Nickel	69	2.0	
7782-49-2	Selenium	ND	3.9	
7440-22-4	Silver	ND	0.98	
7440-28-0	Thallium	3.3	2.0	
7440-62-2	Vanadium	42	2.0	•
7440-66-6	Zinc	300	2.0	

## Intervale Street Site - Quincy, MA Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0009

Lab Sample ID:

AB31006

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

7/13/2012

Digestate Dilution: 3

Volume Digested:

N/A

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	7300	32	
7440-36-0	Antimony	ND	5.9	
7440-38-2	Arsenic	ND	5.9	
7440-39-3	Barium	61	5.9	
7440-41-7	Beryllium	ND	2.4	
7440-43-9	Cadmium	ND	2.9	
7440-70-2	Calcium	4400	29	
7440-47-3	Chromium	370	5.9	
7440-48-4	Cobalt	12	5.9	
7440-50-8	Copper	930	5.9	
7439-89-6	lron	54000	12	
7439-92-1	Lead	390	5.9	
7439-95-4	Magnesium	3200	29	
7439-96-5	Manganese	670	5.9	
7440-02-0	Nickel	250	5.9	
7782-49-2	Selenium	ND	12	
7440-22-4	Silver	ND	2.9	
7440-28-0	Thallium	ND	5.9	
7440-62-2	Vanadium	59	5.9	
7440-66-6	Zinc	610	5.9	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0010

Lab Sample ID:

AB31007

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

7/13/2012

Digestate Dilution: 5

Volume Digested:

N/A

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	14000	54	
7440-36-0	Antimony	11	9.8	
7440-38-2	Arsenic	16	9.8	
7440-39-3	Barium	330	9.8	
7440-41-7	Beryllium	ND	3.9	
7440-43-9	Cadmium	12	4.9	
7440-70-2	Calcium	6000	49	
7440-47-3	Chromium	560	9.8	
7440-48-4	Cobalt	25	9.8	
7440-50-8	Copper	3500	9.8	
7439-89-6	Iron	120000	20	
7439-92-1	Lead	2200	9.8	
7439-95-4	Magnesium	4600	49	
7439-96-5	Manganese	1300	9.8	
7440-02-0	Nickel	450	9.8	
7782-49-2	Selenium	ND	20	
7440-22-4	Silver	6.1	4.9	
7440-28-0	Thallium	ND	9.8	
7440-62-2	Vanadium	120	9.8	
7440-66-6	Zinc	2500	9.8	

## Intervale Street Site - Quincy, MA Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0012

Lab Sample ID:

AB31008

Date of Collection:

7/5/2012

Matrix

Soil

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis:

7/13/2012

Digestate Dilution: 4

Volume Digested:

N/A

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	9100	42	
7440-36-0	Antimony	ND	7.7	
7440-38-2	Arsenic	37	7.7	
7440-39-3	Barium	320	7.7	
7440-41-7	Beryllium	ND	3.1	
7440-43-9	Cadmium	5.7	3.8	
7440-70-2	Calcium	3600	38	
7440-47-3	Chromium	160	7.7	
7440-48-4	Cobalt	11	7.7	
7440-50-8	Copper	700	7.7	
7439-89-6	Iron	68000	15	
7439-92-1	Lead	960	7.7	
7439-95-4	Magnesium	3100	38	
7439-96-5	Manganese	. 820	7.7	
7440-02-0	Nickel	130	7.7	
7782-49-2	Selenium	ND	15	
7440-22-4	Silver	ND	3.8	
7440-28-0	Thallium	ND	7.7	
7440-62-2	Vanadium	63	7.7	
7440-66-6	Zinc	2800	7.7	

## Intervale Street Site - Quincy, MA

## Metals in Soil Medium Level by ICP

Client Sample ID:

R01-120705BE-0014

Lab Sample ID:

AB31010

Date of Collection:

7/5/2012

Matrix

Lab Sand

Date of Digestion:

7/10/2012

Final Volume:

50 mL

Date of Analysis: Volume Digested: 7/13/2012

N/A

Digestate Dilution: 1

pH:

N/A

CAS Number	Parameter	Concentration mg/Kg	RL mg/Kg	Qualifier
7429-90-5	Aluminum	2500	11	
7440-36-0	Antimony	73	2.0	
7440-38-2	Arsenic	89	2.0	
7440-39-3	Barium	6.7	2.0	
7440-41-7	Beryllium	28	0.78	
7440-43-9	Cadmium	18	0.98	
7440-70-2	Calcium	990	9.8	
7440-47-3	Chromium	3.5	2.0	
7440-48-4	Cobalt	34	2.0	
7440-50-8	Copper	32	2.0	
7439-89-6	Iron	4200	3.9	
7439-92-1	Lead	43	2.0	
7439-95-4	Magnesium	6900	9.8	
7439-96-5	Manganese	41	2.0	
7440-02-0	Nickel	37	2.0	
7782-49-2	Selenium	17	3.9	
7440-22-4	Silver	9.6	0.98	
7440-28-0	Thallium	ND	2.0	
7440-62-2	Vanadium	150	2.0	
7440-66-6	Zinc	5.1	2.0	

## Intervale Street Site - Quincy, MA

## Laboratory Reagent Blank

Client Sample ID: N/A

Date of Collection: N/A

Date of Digestion: 7/10/2012

Date of Analysis:

7/13/2012

Matrix: Water
Final Volume: 50 mL

Lab Sample ID:

N/A

Digestate Dilution: 1

Volume Digested: N/A pH: N/A

CAS Number	Parameter	Concentration ug/L	RL ug/L	Qualifier
7429-90-5	Aluminum	ND	110	
7440-36-0	Antimony	ND	20	
7440-38-2	Arsenic	ND	20	
7440-39-3	Barium	ND	20	
7440-41-7	Beryllium	ND	8.0	
7440-43-9	Cadmium	ND	10	
7440-70-2	Calcium	ND	100	
7440-47-3	Chromium	ND	20	
7440-48-4	Cobalt	ND	20	
7440-50-8	Copper	ND	20	
7439-89-6	Iron	ND	40	
7439-92-1	Lead	ND	20	
7439-95-4	Magnesium	ND	100	
7439-96-5	Manganese	ND	20	
7440-02-0	Nickel	ND	20	
7782-49-2	Selenium	ND	40	
7440-22-4	Silver	ND	10	
7440-28-0	Thallium	ND	20	
7440-62-2	Vanadium	ND	20	
7440-66-6	Zinc	ND	20	

## METALS MATRIX SPIKE (MS) RESULTS

Intervale Street Site - Quincy, MA Sample ID: AB30998

PARAMETER	SPIKE ADDED mg/Kg	SAMPLE CONCENTRATION mg/Kg	MS CONCENTRATION mg/Kg	MS % REC	QC LIMITS (% REC)
Antimony	98.0	ND	91.6	94	75 - 125
Arsenic	98.0	8.9	105	98	75 - 125
Barium	98.0	1500	400	R	75 - 125
Beryllium	39.2	ND	39.8	102	75 - 125
Cadmium	49.0	6.3	55.3	100	75 - 125
Chromium	98.0	120	191	72	75 - 125
Cobalt	98.0	ND	107	109	75 - 125
Copper	98.0	3200	1090	R	75 - 125
Lead	98.0	3200	3650	R	75 - 125
Manganese	98.0	790	916	R	75 - 125
Nickel	98.0	110	199	91	75 - 125
Selenium	98.0	ND	97 <b>.7</b>	100	75 - 125
Silver	19.6	ND	21.4	109	75 - 125
Thallium	98.0	ND	100	102	75 - 125
Vanadium	98.0	28	132	106	75 - 125
Zinc	98.0	1100	1280	R	75 - 125

Comments:

Samples in Batch: AB30998, AB30999, AB31000, AB31001, AB31002, AB31003, AB31004, AB31005, AB31006, AB31007, AB31008, AB31010

## **Laboratory Duplicate Results**

Intervale Street Site - Quincy, MA

Sample ID: AB30999

	SAMPLE RESULT	SAMPLE DUPLICATE RESULT	PRECISION RPD	QC
PARAMETER	mg/Kg	mg/Kg	%	LIMITS
Aluminum	12000	11000	9	30
Antimony	3.2	3.8	17	30
Arsenic	11	10	10	30
Barium	260	420	47	30
Beryllium	ND	ND	NC	30
Cadmium	5.0	4.8	4	30
Calcium	5900	5500	7	30
Chromium	110	83	28	30
Cobalt	9.0	8.4	7	30
Copper	580	500	15	30
Iron	29000	32000	10	30
Lead	1100	920	18	30
Magnesium	3200	3200	0	30
Manganese	550	540	2	30
Nickel	93	78	18	30
Selenium	ND	ND	NC	30
Silver	0.99	4.3	130	30
Thallium	2.5	3.0	18	30
Vanadium	42	39	7 .	30
Zinc	1200	1700	0	30

## Laboratory Fortified Blank (LFB) Results

Intervale Street Site - Quincy, MA

PARAMETER	LFB AMOUNT SPIKED ug/L	LFB RESULT ug/L	LFB RECOVERY %	QC LIMITS %
Aluminum	1000	1020	102	85 - 115
Antimony	1000	953	95	85 - 115
Arsenic	1000	936	94	85 - 115
Barium	1000	1020	102	85 - 115
Beryllium	400	377	94	85 - 115
Cadmium	500	473	95	85 - 115
Calcium	10000	10100	101	85 - 115
Chromium	1000	1030	103	85 - 115
Cobalt	1000	999	100	85 - 115
Copper	1000	1050	105	85 - 115
Iron	1000	1010	101	85 - 115
Lead	1000	982	98	85 - 115
Magnesium	10000	9850	99	85 - 115
Manganese	1000	982	98	85 - 115
Nickel	1000	992	99	85 - 115
Selenium	1000	890	89	85 - 115
Silver	200	198	99	85 - 115
Thallium	1000	999	100	85 - 115
Vanadium	1000	1040	104	85 <b>-</b> 115
Zinc	1000	932	93	85 - 115

## Solid Laboratory Control Sample (LCS) Results

## Intervale Street Site - Quincy, MA

	LCS	CONTROL	
	RESULTS	LIMITS	
PARAMETER	mg/Kg	mg/Kg	
Aluminum	9690	3950 - 12800	
Antimony	90.1	2 - 186	
Arsenic	94.8	77.8 - 111	
Barium	167	140 - 193	
Beryllium	56.3	47.8 - 67.4	
Cadmium	59.0	50.3 - 70.7	
Calcium	6090	5110 - 7180	
Chromium	73.9	57.6 - 83.2	
Cobalt	104	84.9 - 119	
Copper	87.8	66.7 - 92.4	
lron	14500	6330 - 18700	
Lead	91.1	75.5 - 108	
Magnesium	2670	1960 - 3190	
Manganese	291	233 - 332	
Nickel	58.7	47.7 - 67.5	
Selenium	83.2	69.2 - 104	
Silver	36.6	22.8 - 46.1	
Thallium	119	93.9 - 145	
Vanadium	65.7	41.9 - 72	
Zinc	133	115 - 165	

### PROJECT NOTES

Site Name: Intervale Street Site

Site Code: 01KK Date: 7/26/2012 PN: 12070007

TO: 82 Task: 02 TDF: 2666

## Perkin Elmer Dual View 4300 ICP

### Metals in Soil, 12070007, \$METMS PE

- Matrix Spike analysis was performed on sample AB30998. No percent recoveries (%RECs) were calculated for barium, copper, lead, manganese and zinc since these analyte concentrations were greater than four times the spike levels. The %REC for chromium was outside the quality control (OC) limits; this result was qualified as estimated J1.
- · Laboratory Duplicate analysis was performed on sample AB30999. The Relative Percent Differences (RPDs) for barium and silver were outside the QC acceptance limits; these results were qualified as estimated J3.
- Calcium (76.74 μg/L) and iron (23.03 μg/L) were found in the Laboratory Reagent Blank (LRB) at concentrations > ½ the reporting limits; however the observed concentrations of calcium and iron in all samples were greater than 10 times the concentrations found in the LRB. Qualification of the calcium and iron results was not required on this basis.
- · Since this project is from a new site, serial dilutions and post spikes are included in the data package.
- It should be mentioned that the InterElement Correction (IEC) factors were checked and verified for iron due to performance prior to the analysis of the reported results. A Preventative Maintenance (PM) is scheduled for the instrument; it might be worth it to adhere to the schedule so that the torch in use can be switched out and all performance verifications can be re-established.
- Several Samples were re-analyzed at dilutions due to high analyte concentrations; the reporting limits were raised accordingly.
- The reporting limit (RL) for selenium was raised since the concentration of selenium in at least one of the Interference Check Samples (IFCSA) was greater than ½ the reporting limit.

Signature: Date: 7/26/2012



May 2, 2013

Olaf Westphalen Watermark Environmental, Inc. 175 Cabot Street, Suite 501 Lowell, MA 01854

Project Location: 175 Intervale St., Quincy, MA

Client Job Number: Project Number: [none]

Laboratory Work Order Number: 13D0894

Meghans. Kelley

Enclosed are results of analyses for samples received by the laboratory on April 23, 2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley Project Manager



Watermark Environmental, Inc. 175 Cabot Street, Suite 501 Lowell, MA 01854 ATTN: Olaf Westphalen REPORT DATE: 5/2/2013

PURCHASE ORDER NUMBER: W13-7265

PROJECT NUMBER: [none]

### ANALYTICAL SUMMARY

WORK ORDER NUMBER: 13D0894

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 175 Intervale St., Quincy, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-4R	13D0894-01	Ground Water		MADEP-EPH-04-1	1.1
				MADEP-VPH-04-	1.1
				SW-846 6020A	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8260C	
MW-1R	13D0894-02	Ground Water		MADEP-EPH-04-1	1.1
				MADEP-VPH-04-	1.1
				SW-846 6020A	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8260C	
MW-3R	13D0894-03	Ground Water		MADEP-EPH-04-1	1.1
				MADEP-VPH-04-	1.1
				SW-846 6020A	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8260C	
MW-3R (DUP)	13D0894-04	Ground Water		MADEP-EPH-04-1	1.1
				MADEP-VPH-04-	1.1
				SW-846 6020A	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8260C	



### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method MA VPH, only hydrocarbon ranges were requested and reported



#### MADEP-VPH-04-1.1

### **Oualifications:**

Potential false positive result due to a non-petroleum hydrocarbon peak or peaks within the aliphatic/aromatic range.

### Analyte & Samples(s) Qualified:

### C9-C10 Aromatics, C9-C12 Aliphatics, Unadjusted C9-C12 Aliphatics

13D0894-01[MW-4R], 13D0894-03[MW-3R], 13D0894-04[MW-3R (DUP)]

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

### Analyte & Samples(s) Qualified:

#### 2,2,4-Trimethylpentane

B071856-BS1, B071856-BSD1

#### SW-846 6020A

### Qualifications:

Sample required a dilution due to low internal standard recovery of the lesser diluted digestion, reporting limit is elevated.

#### Analyte & Samples(s) Qualified:

#### Lead, Thallium

13D0894-03[MW-3R]

#### SW-846 8260C

#### Qualifications:

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

### Analyte & Samples(s) Qualified:

### Carbon Disulfide, Diisopropyl Ether (DIPE)

B071755-BS1, B071755-BSD1

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

### Analyte & Samples(s) Qualified:

### 1,2,3-Trichlorobenzene, Naphthalene

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the high side.

### Analyte & Samples(s) Qualified:

#### Acetone

B071701-BS1, B071701-BSD1

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

### Analyte & Samples(s) Qualified:

### Carbon Disulfide

B071701-BS1



Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

### Analyte & Samples(s) Qualified:

### 1,2,3-Trichlorobenzene, Naphthalene

B071755-BSD1

Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.

#### Analyte & Samples(s) Qualified:

#### 2-Butanone (MEK), Acetone, Bromomethane, Dichlorodifluoromethane (Freon 12)

B071701-BS1, B071701-BSD1, B071755-BS1

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

### Analyte & Samples(s) Qualified:

## 1,2,3-Trichlorobenzene, 1,2-Dibromo-3-chloropropane (DBCP), 2,2-Dichloropropane, 2-Butanone (MEK), Acetone, Bromomethane, Chloromethane, Naphthalene, tert-Amyl Methyl Ether (TAME), tert-Butyl Ethyl Ether (TBEE)

13D0894-02[MW-1R], B071755-BLK1, B071755-BS1, B071755-BSD1, 13D0894-01[MW-4R], 13D0894-03[MW-3R], 13D0894-04[MW-3R (DUP)], B071701-BLK1, B071701-BS1, B071701-BSD1

Elevated reporting limit based on lowest point in calibration.

MA CAM reporting limit not met.

### Analyte & Samples(s) Qualified:

#### Carbon Disulfide, Methylene Chloride, tert-Amyl Methyl Ether (TAME), tert-Butyl Ethyl Ether (TBEE)

13D0894-01[MW-4R], 13D0894-02[MW-1R], 13D0894-03[MW-3R], 13D0894-04[MW-3R (DUP)]

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

#### Analyte & Samples(s) Qualified:

### 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane (DBCP), Chloromethane, Naphthalene

 $13D0894-01[MW-4R], 13D0894-02[MW-1R], 13D0894-03[MW-3R], 13D0894-04[MW-3R\ (DUP)], B071701-BLK1, B071701-BS1, B071701-BSD1, B071755-BLK1, B071755-BSD1, B071755-BSD1$ 

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

### Analyte & Samples(s) Qualified:

### 1,4-Dioxane

 $13D0894-01[MW-4R], 13D0894-02[MW-1R], 13D0894-03[MW-3R], 13D0894-04[MW-3R\ (DUP)], B071701-BLK1, B071701-BS1, B071701-BSD1, B071755-BLK1, B071755-BS1, B071755-BSD1$ 

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

### Analyte & Samples(s) Qualified:

### Bromomethane, Carbon Disulfide, Chloromethane

B071755-BS1, B071755-BSD1, B071701-BS1, B071701-BSD1



#### MADEP-EPH-04-1.1

SPE cartridge contamination with non-petroleum compounds, if present, is verified by GC/MS in each method blank per extraction batch and excluded from C11-C22 aromatic range fraction in all samples in the batch. No significant modifications were made to the method.

### MADEP-VPH-04-1.1

No significant modifications were made to the method. All VPH samples were received preserved properly at pH <2 in the proper containers as specified on the chain-of-custody form unless specified in this narrative.

#### SW-846 8260C

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for "difficult analytes" where recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, dichlorodifluoromethane, 2-hexanone, and bromomethane.

 $The \ results \ of \ analyses \ reported \ only \ relate \ to \ samples \ submitted \ to \ the \ Con-Test \ Analytical \ Laboratory \ for \ testing.$ 

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian Laboratory Manager



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-4R Sampled: 4/23/2013 10:45

Sample ID: 13D0894-01
Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units I	) Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
tert-Amyl Methyl Ether (TAME)	12	5.0	μg/L	1	R-05, RL-07	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Benzene	2.9	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Bromobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Bromochloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Bromodichloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Bromoform	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Bromomethane	ND	2.0	μg/L	1	R-05	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
2-Butanone (MEK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
n-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
sec-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
tert-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	5.0	μg/L	1	R-05, RL-07	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Carbon Disulfide	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Carbon Tetrachloride	ND	1.0	μg/L	1	RE 07	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Chlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Chlorodibromomethane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Chloroethane	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Chloroform	ND	2.0		1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Chloromethane	ND ND	2.0	μg/L	1	R-05, V-05	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
2-Chlorotoluene	ND	1.0	μg/L	1	K-03, V-03	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
4-Chlorotoluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13		
1,2-Dibromo-3-chloropropane (DBCP)		2.0	μg/L	1	V-05			4/24/13 18:08	EEH
1,2-Dibromoethane (EDB)	ND		μg/L		V-03	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Dibromomethane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,2-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,3-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,4-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,1-Dichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,2-Dichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,1-Dichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
cis-1,2-Dichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
trans-1,2-Dichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,2-Dichloropropane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,3-Dichloropropane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
2,2-Dichloropropane	ND	1.0	μg/L	1	R-05	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,1-Dichloropropene	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
cis-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
trans-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Diethyl Ether	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Diisopropyl Ether (DIPE)	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,4-Dioxane	ND	50	μg/L	1	V-16	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Ethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH

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Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-4R Sampled: 4/23/2013 10:45

Sample ID: 13D0894-01 Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.50	μg/L	1	<del>-</del>	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
2-Hexanone (MBK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Isopropylbenzene (Cumene)	1.1	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Methyl tert-Butyl Ether (MTBE)	60	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Methylene Chloride	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Naphthalene	26	2.0	μg/L	1	L-04, V-05	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
n-Propylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Styrene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Tetrachloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Tetrahydrofuran	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Toluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,2,3-Trichlorobenzene	ND	2.0	μg/L	1	L-04, V-05	SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,1,1-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,1,2-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Trichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,2,3-Trichloropropane	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,2,4-Trimethylbenzene	3.0	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Vinyl Chloride	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
m+p Xylene	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
o-Xylene	1.8	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 18:08	EEH
Surrogates		% Recovery	Recovery Limits	;	Flag				
1,2-Dichloroethane-d4		99.6	70-130					4/24/13 18:08	
Toluene-d8		102	70-130					4/24/13 18:08	
4-Bromofluorobenzene		99.4	70-130					4/24/13 18:08	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-4R Sampled: 4/23/2013 10:45

Sample ID: 13D0894-01 Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	100	μg/L	1	- ····g	MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
C19-C36 Aliphatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Unadjusted C11-C22 Aromatics	700	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
C11-C22 Aromatics	490	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Acenaphthene	87	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Acenaphthylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Benzo(a)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Benzo(a)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Benzo(b)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Benzo(g,h,i)perylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Benzo(k)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Chrysene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Dibenz(a,h)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Fluoranthene	2.3	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Fluorene	29	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Indeno(1,2,3-cd)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
2-Methylnaphthalene	33	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Naphthalene	20	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Phenanthrene	33	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	СЈМ
Pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:00	CJM
Surrogates		% Recovery	Recovery Limits		Flag				
Chlorooctadecane (COD)		44.7	40-140					4/30/13 17:00	
o-Terphenyl (OTP)		56.6	40-140					4/30/13 17:00	
2-Bromonaphthalene		78.8	40-140					4/30/13 17:00	

Surrogates	% Recovery	Recovery Limits	Flag	
Chlorooctadecane (COD)	44.7	40-140		4/30/13 17:00
o-Terphenyl (OTP)	56.6	40-140		4/30/13 17:00
2-Bromonaphthalene	78.8	40-140		4/30/13 17:00
2-Fluorobiphenyl	85.1	40-140		4/30/13 17:00



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-4R Sampled: 4/23/2013 10:45

Sample ID: 13D0894-01
Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	100	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 14:56	EEH
C5-C8 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 14:56	EEH
Unadjusted C9-C12 Aliphatics	320	100	μg/L	1	Q-01	MADEP-VPH-04-1.1	4/26/13	4/26/13 14:56	EEH
C9-C12 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 14:56	EEH
C9-C10 Aromatics	300	100	μg/L	1	Q-01	MADEP-VPH-04-1.1	4/26/13	4/26/13 14:56	EEH
Surrogates		% Recovery	Recovery Limits	5	Flag				
2,5-Dibromotoluene (FID)		100	70-130					4/26/13 14:56	
2,5-Dibromotoluene (PID)		103	70-130					4/26/13 14:56	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-4R Sampled: 4/23/2013 10:45

Sample ID: 13D0894-01
Sample Matrix: Ground Water

### Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Arsenic	1.8	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Barium	380	50	μg/L	5		SW-846 6020A	4/24/13	4/25/13 11:51	KSH
Beryllium	ND	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Cadmium	ND	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Chromium	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Lead	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	4/24/13	4/24/13 15:04	SAJ
Nickel	5.6	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Selenium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Silver	ND	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Thallium	ND	0.20	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Vanadium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH
Zinc	ND	10	ug/L	1		SW-846 6020A	4/24/13	4/25/13 10:57	KSH



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013
Field Sample #: MW-4R

Sampled: 4/23/2013 10:45

Sample ID: 13D0894-01
Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag	Method	Prepared	Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	4/24/13	4/24/13 8:25	LL



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-1R Sampled: 4/23/2013 09:35

Sample ID: 13D0894-02

Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	10	μg/L	1	R-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
tert-Amyl Methyl Ether (TAME)	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Benzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Bromobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Bromochloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Bromodichloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Bromoform	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Bromomethane	ND	2.0	μg/L	1	R-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
2-Butanone (MEK)	ND	10	μg/L	1	R-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
n-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
sec-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
tert-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Carbon Disulfide	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Carbon Tetrachloride	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Chlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Chlorodibromomethane	ND	0.50	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Chloroethane	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Chloroform	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Chloromethane	ND	2.0	μg/L	1	R-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
2-Chlorotoluene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
4-Chlorotoluene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	μg/L	1	R-05, V-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2-Dibromoethane (EDB)	ND	0.50	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Dibromomethane	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2-Dichlorobenzene	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,3-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,4-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,1-Dichloroethane	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2-Dichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,1-Dichloroethylene	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
cis-1,2-Dichloroethylene	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
trans-1,2-Dichloroethylene	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2-Dichloropropane	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,3-Dichloropropane	ND	0.50	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
2,2-Dichloropropane	ND	1.0	$\mu g/L$	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,1-Dichloropropene	ND	0.50	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
cis-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
trans-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Diethyl Ether	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Diisopropyl Ether (DIPE)	ND	0.50	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,4-Dioxane	ND	50	μg/L	1	V-16	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Ethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH

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Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-1R Sampled: 4/23/2013 09:35

Sample ID: 13D0894-02 Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.50	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
2-Hexanone (MBK)	ND	10	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Isopropylbenzene (Cumene)	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Methylene Chloride	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Naphthalene	ND	2.0	μg/L	1	R-05, V-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
n-Propylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Styrene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Tetrachloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Tetrahydrofuran	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Toluene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2,3-Trichlorobenzene	ND	2.0	μg/L	1	R-05, V-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	V-05	SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,1,1-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,1,2-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Trichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2,3-Trichloropropane	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Vinyl Chloride	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
m+p Xylene	ND	2.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
o-Xylene	ND	1.0	μg/L	1		SW-846 8260C	4/25/13	4/26/13 12:44	EEH
Surrogates		% Recovery	Recovery Limits	1	Flag				
1,2-Dichloroethane-d4		102	70-130					4/26/13 12:44	
Toluene-d8		101	70-130					4/26/13 12:44	
4-Bromofluorobenzene		101	70-130					4/26/13 12:44	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-1R Sampled: 4/23/2013 09:35

Sample ID: 13D0894-02 Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	СЈМ
C19-C36 Aliphatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Unadjusted C11-C22 Aromatics	110	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
C11-C22 Aromatics	110	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Acenaphthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Acenaphthylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Benzo(a)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Benzo(a)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Benzo(b)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Benzo(g,h,i)perylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Benzo(k)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Chrysene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Dibenz(a,h)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Fluorene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Indeno(1,2,3-cd)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
2-Methylnaphthalene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Naphthalene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Phenanthrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:21	CJM
Surrogates		% Recovery	Recovery Limits		Flag				
Chlorooctadecane (COD)	_	52.5	40-140					4/30/13 17:21	
o-Terphenyl (OTP)		68.8	40-140					4/30/13 17:21	
2-Bromonaphthalene		92.7	40-140					4/30/13 17:21	
2. Elyanohimbanyil		05.0	40.140					4/20/12 17.21	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-1R Sampled: 4/23/2013 09:35

Sample ID: 13D0894-02
Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 15:31	EEH
C5-C8 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 15:31	EEH
Unadjusted C9-C12 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 15:31	EEH
C9-C12 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 15:31	EEH
C9-C10 Aromatics	ND	100	$\mu g/L$	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 15:31	EEH
Surrogates		% Recovery	Recovery Limits	1	Flag				
2,5-Dibromotoluene (FID)		99.6	70-130					4/26/13 15:31	
2,5-Dibromotoluene (PID)		97.9	70-130					4/26/13 15:31	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-1R Sampled: 4/23/2013 09:35

Sample ID: 13D0894-02

Sample Matrix: Ground Water

### Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
· · · · · · · · · · · · · · · · · · ·	Results	KL	Units	Dilution	Flag	Method	Перагеи	Anaryzeu	Allalyst
Antimony	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Arsenic	1.7	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Barium	85	10	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Beryllium	ND	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Cadmium	ND	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Chromium	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Lead	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	4/24/13	4/24/13 15:05	SAJ
Nickel	6.5	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Selenium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Silver	ND	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Thallium	ND	0.20	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Vanadium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH
Zinc	ND	10	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:07	KSH



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-1R

Sampled: 4/23/2013 09:35

Sample ID: 13D0894-02
Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

							Date		
Analyte	Results	RL	Units	Dilution	Flag	Method	Prepared	Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	4/24/13	4/24/13 8:25	LL



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R Sampled: 4/23/2013 11:35

Sample ID: 13D0894-03
Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
tert-Amyl Methyl Ether (TAME)	ND	5.0	μg/L	1	R-05, RL-07	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Benzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Bromobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Bromochloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Bromodichloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Bromoform	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Bromomethane	ND	2.0	μg/L	1	R-05	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
2-Butanone (MEK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
n-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
sec-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
tert-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	5.0	μg/L	1	R-05, RL-07	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Carbon Disulfide	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Carbon Tetrachloride	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Chlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Chlorodibromomethane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Chloroethane	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Chloroform	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Chloromethane	ND	2.0	μg/L	1	R-05, V-05	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
2-Chlorotoluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
4-Chlorotoluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	μg/L	1	V-05	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2-Dibromoethane (EDB)	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Dibromomethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,3-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,4-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,1-Dichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2-Dichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,1-Dichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
cis-1,2-Dichloroethylene	5.6	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
trans-1,2-Dichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2-Dichloropropane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,3-Dichloropropane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
2,2-Dichloropropane	ND	1.0	μg/L	1	R-05	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,1-Dichloropropene	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
cis-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
trans-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Diethyl Ether	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Diisopropyl Ether (DIPE)	ND	0.50	μg/L μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,4-Dioxane	ND	50	μg/L	1	V-16	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
			L.D	-	,		,	= ., 15 17.01	

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Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R Sampled: 4/23/2013 11:35

Sample ID: 13D0894-03
Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag	Method	Prepared	Analyzed	Analyst
Hexachlorobutadiene	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
2-Hexanone (MBK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Isopropylbenzene (Cumene)	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Methylene Chloride	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Naphthalene	ND	2.0	μg/L	1	L-04, V-05	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
n-Propylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Styrene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Tetrachloroethylene	17	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Tetrahydrofuran	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Toluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2,3-Trichlorobenzene	ND	2.0	μg/L	1	L-04, V-05	SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,1,1-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,1,2-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Trichloroethylene	5.5	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2,3-Trichloropropane	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Vinyl Chloride	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
m+p Xylene	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
o-Xylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:01	EEH
Surrogates		% Recovery	Recovery Limits		Flag				
1,2-Dichloroethane-d4		101	70-130					4/24/13 19:01	
Toluene-d8		96.9	70-130					4/24/13 19:01	
4-Bromofluorobenzene		100	70-130					4/24/13 19:01	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R Sampled: 4/23/2013 11:35

Sample ID: 13D0894-03 Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	СЈМ
C19-C36 Aliphatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Unadjusted C11-C22 Aromatics	130	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
C11-C22 Aromatics	130	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Acenaphthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Acenaphthylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Benzo(a)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Benzo(a)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Benzo(b)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Benzo(g,h,i)perylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Benzo(k)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Chrysene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Dibenz(a,h)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Fluorene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Indeno(1,2,3-cd)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
2-Methylnaphthalene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Naphthalene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Phenanthrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 17:42	CJM
Surrogates		% Recovery	Recovery Limits		Flag				
Chlorooctadecane (COD)		54.6	40-140					4/30/13 17:42	
o-Terphenyl (OTP)		68.0	40-140					4/30/13 17:42	
2-Bromonaphthalene		87.5	40-140					4/30/13 17:42	

Surrogates	% Recovery	Recovery Limits	Flag	
Chlorooctadecane (COD)	54.6	40-140		4/30/13 17:42
o-Terphenyl (OTP)	68.0	40-140		4/30/13 17:42
2-Bromonaphthalene	87.5	40-140		4/30/13 17:42
2-Fluorobiphenyl	89.2	40-140		4/30/13 17:42



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R Sampled: 4/23/2013 11:35

Sample ID: 13D0894-03

Sample Matrix: Ground Water

Petroleum Hydrocarbons Ana	vses	٠,	VPH
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Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 16:08	EEH
C5-C8 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 16:08	EEH
Unadjusted C9-C12 Aliphatics	100	100	μg/L	1	Q-01	MADEP-VPH-04-1.1	4/26/13	4/26/13 16:08	EEH
C9-C12 Aliphatics	100	100	μg/L	1	Q-01	MADEP-VPH-04-1.1	4/26/13	4/26/13 16:08	EEH
C9-C10 Aromatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 16:08	EEH
Surrogates		% Recovery	Recovery Limits	s	Flag				
2,5-Dibromotoluene (FID)		97.1	70-130					4/26/13 16:08	
2,5-Dibromotoluene (PID)		95.0	70-130					4/26/13 16:08	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R Sampled: 4/23/2013 11:35

Sample ID: 13D0894-03
Sample Matrix: Ground Water

### Metals Analyses (Dissolved)

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Analyte	Results	RL	Units	Dilution	Flag	Method	Prepared	Analyzed	Analyst
Antimony	1.7	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Arsenic	1.2	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Barium	220	50	μg/L	5		SW-846 6020A	4/24/13	4/25/13 11:58	KSH
Beryllium	ND	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Cadmium	2.1	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Chromium	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Lead	ND	2.0	μg/L	2	Z-01	SW-846 6020A	4/24/13	4/25/13 11:55	KSH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	4/24/13	4/24/13 15:07	SAJ
Nickel	16	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Selenium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Silver	ND	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Thallium	ND	0.40	μg/L	2	Z-01	SW-846 6020A	4/24/13	4/25/13 11:55	KSH
Vanadium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:24	KSH
Zinc	470	50	μg/L	5		SW-846 6020A	4/24/13	4/25/13 11:58	KSH



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013
Field Sample #: MW-3R

Sampled: 4/23/2013 11:35

Sample ID: 13D0894-03
Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag	Method	Prepared	Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	4/24/13	4/24/13 8:25	LL



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R (DUP) Sampled: 4/23/2013 11:35

Sample ID: 13D0894-04

Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
tert-Amyl Methyl Ether (TAME)	ND	5.0	μg/L	1	R-05, RL-07	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Benzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Bromobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Bromochloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Bromodichloromethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Bromoform	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Bromomethane	ND	2.0	μg/L	1	R-05	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
2-Butanone (MEK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
n-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
sec-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
tert-Butylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	5.0	μg/L	1	RL-07, R-05	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Carbon Disulfide	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Carbon Tetrachloride	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Chlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Chlorodibromomethane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Chloroethane	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Chloroform	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Chloromethane	ND	2.0	μg/L	1	R-05, V-05	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
2-Chlorotoluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
4-Chlorotoluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	μg/L	1	V-05	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2-Dibromoethane (EDB)	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Dibromomethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,3-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,4-Dichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,1-Dichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2-Dichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,1-Dichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
cis-1,2-Dichloroethylene	5.3	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
trans-1,2-Dichloroethylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2-Dichloropropane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,3-Dichloropropane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
2,2-Dichloropropane	ND	1.0	μg/L	1	R-05	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,1-Dichloropropene	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
cis-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
trans-1,3-Dichloropropene	ND	0.40	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Diethyl Ether	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Diisopropyl Ether (DIPE)	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,4-Dioxane	ND	50	μg/L	1	V-16	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Ethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH

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Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R (DUP) Sampled: 4/23/2013 11:35

Sample ID: 13D0894-04 Sample Matrix: Ground Water

### Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
2-Hexanone (MBK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Isopropylbenzene (Cumene)	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Methylene Chloride	ND	5.0	μg/L	1	RL-07	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Naphthalene	ND	2.0	μg/L	1	L-04, V-05	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
n-Propylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Styrene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Tetrachloroethylene	18	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Tetrahydrofuran	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Toluene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2,3-Trichlorobenzene	ND	2.0	μg/L	1	L-04, V-05	SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,1,1-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,1,2-Trichloroethane	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Trichloroethylene	5.7	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2,3-Trichloropropane	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Vinyl Chloride	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
m+p Xylene	ND	2.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
o-Xylene	ND	1.0	μg/L	1		SW-846 8260C	4/24/13	4/24/13 19:27	EEH
Surrogates		% Recovery	Recovery Limits		Flag				
1,2-Dichloroethane-d4		98.4	70-130					4/24/13 19:27	
Toluene-d8		101	70-130					4/24/13 19:27	
4-Bromofluorobenzene		99.9	70-130					4/24/13 19:27	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R (DUP) Sampled: 4/23/2013 11:35

Sample ID: 13D0894-04

Sample Matrix: Ground Water

2-Fluorobiphenyl

### Petroleum Hydrocarbons Analyses - EPH

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag	Method	Prepared	Analyzed	Analyst
C9-C18 Aliphatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
C19-C36 Aliphatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Unadjusted C11-C22 Aromatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
C11-C22 Aromatics	ND	100	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Acenaphthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Acenaphthylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Benzo(a)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Benzo(a)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Benzo(b)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Benzo(g,h,i)perylene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Benzo(k)fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Chrysene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Dibenz(a,h)anthracene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Fluoranthene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Fluorene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Indeno(1,2,3-cd)pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	СЈМ
2-Methylnaphthalene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	СЈМ
Naphthalene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Phenanthrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	CJM
Pyrene	ND	2.0	μg/L	1		MADEP-EPH-04-1.1	4/25/13	4/30/13 18:03	СЈМ
Surrogates		% Recovery	Recovery Limits		Flag				
Chlorooctadecane (COD)		54.8	40-140					4/30/13 18:03	
o-Terphenyl (OTP)		65.5	40-140					4/30/13 18:03	
2-Bromonaphthalene		90.7	40-140					4/30/13 18:03	

40-140

94.2

4/30/13 18:03



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R (DUP) Sampled: 4/23/2013 11:35

Sample ID: 13D0894-04

Sample Matrix: Ground Water

### Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 18:05	EEH
C5-C8 Aliphatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 18:05	EEH
Unadjusted C9-C12 Aliphatics	100	100	μg/L	1	Q-01	MADEP-VPH-04-1.1	4/26/13	4/26/13 18:05	EEH
C9-C12 Aliphatics	100	100	μg/L	1	Q-01	MADEP-VPH-04-1.1	4/26/13	4/26/13 18:05	EEH
C9-C10 Aromatics	ND	100	μg/L	1		MADEP-VPH-04-1.1	4/26/13	4/26/13 18:05	EEH
Surrogates		% Recovery	Recovery Limits	5	Flag				
2,5-Dibromotoluene (FID)		97.7	70-130					4/26/13 18:05	
2,5-Dibromotoluene (PID)		96.7	70-130					4/26/13 18:05	



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R (DUP) Sampled: 4/23/2013 11:35

Sample ID: 13D0894-04
Sample Matrix: Ground Water

### Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	1.6	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Arsenic	1.7	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Barium	210	50	μg/L	5		SW-846 6020A	4/24/13	4/25/13 12:02	KSH
Beryllium	ND	0.40	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Cadmium	1.9	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Chromium	ND	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Lead	1.3	1.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	4/24/13	4/24/13 15:09	SAJ
Nickel	14	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Selenium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Silver	ND	0.50	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Thallium	ND	0.20	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Vanadium	ND	5.0	μg/L	1		SW-846 6020A	4/24/13	4/25/13 11:44	KSH
Zinc	440	50	па/Г	5		SW-846 6020A	4/24/13	4/25/13 12:02	KSH



Project Location: 175 Intervale St., Quincy, MA Sample Description: Work Order: 13D0894

Date Received: 4/23/2013

Field Sample #: MW-3R (DUP) Sampled: 4/23/2013 11:35

Sample ID: 13D0894-04
Sample Matrix: Ground Water

### Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag	Method	Prepared	Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	4/24/13	4/24/13 8:25	LL



### Sample Extraction Data

Prep Method: SW-846 3510C-MADEP-EPH-04-1.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
13D0894-01 [MW-4R]	B071775	1000	2.00	04/25/13
13D0894-02 [MW-1R]	B071775	1000	2.00	04/25/13
13D0894-03 [MW-3R]	B071775	1000	2.00	04/25/13
13D0894-04 [MW-3R (DUP)]	B071775	1000	2.00	04/25/13

Prep Method: MA VPH-MADEP-VPH-04-1.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
13D0894-01 [MW-4R]	B071856	5	5.00	04/26/13
13D0894-02 [MW-1R]	B071856	5	5.00	04/26/13
13D0894-03 [MW-3R]	B071856	5	5.00	04/26/13
13D0894-04 [MW-3R (DUP)]	B071856	5	5.00	04/26/13

Prep Method: SW-846 3005A Dissolved-SW-846 6020A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
13D0894-01 [MW-4R]	B071725	50.0	50.0	04/24/13
13D0894-02 [MW-1R]	B071725	50.0	50.0	04/24/13
13D0894-03 [MW-3R]	B071725	50.0	50.0	04/24/13
13D0894-04 [MW-3R (DUP)]	B071725	50.0	50.0	04/24/13

### SW-846 7196A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
13D0894-01 [MW-4R]	B071672	50.0	50.0	04/24/13
13D0894-02 [MW-1R]	B071672	50.0	50.0	04/24/13
13D0894-03 [MW-3R]	B071672	50.0	50.0	04/24/13
13D0894-04 [MW-3R (DUP)]	B071672	50.0	50.0	04/24/13

Prep Method: SW-846 7470A Prep-SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
13D0894-01 [MW-4R]	B071685	6.00	6.00	04/24/13	
13D0894-02 [MW-1R]	B071685	6.00	6.00	04/24/13	
13D0894-03 [MW-3R]	B071685	6.00	6.00	04/24/13	
13D0894-04 [MW-3R (DUP)]	B071685	6.00	6.00	04/24/13	

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
13D0894-01 [MW-4R]	B071701	5	5.00	04/24/13
13D0894-03 [MW-3R]	B071701	5	5.00	04/24/13
13D0894-04 [MW-3R (DUP)]	B071701	5	5.00	04/24/13

Prep Method: SW-846 5030B-SW-846 8260C



### Sample Extraction Data

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
13D0894-02 [MW-1R]	B071755	5	5.00	04/25/13



		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (B071701-BLK1)				Prepared & Analyzed: 04/24/13	
Acetone	ND	10	μg/L		
tert-Amyl Methyl Ether (TAME)	ND	5.0	μg/L		R-05
Benzene	ND	1.0	μg/L		
Bromobenzene	ND	1.0	μg/L		
Bromochloromethane	ND	1.0	μg/L		
Bromodichloromethane	ND	1.0	μg/L		
Bromoform	ND	1.0	μg/L		
Bromomethane	ND	2.0	μg/L		R-05
2-Butanone (MEK)	ND	10	μg/L		
n-Butylbenzene	ND	1.0	μg/L		
sec-Butylbenzene	ND	1.0	μg/L		
tert-Butylbenzene	ND	1.0	μg/L		
tert-Butyl Ethyl Ether (TBEE)	ND	5.0	μg/L		R-05
Carbon Disulfide	ND	5.0	μg/L		
Carbon Tetrachloride	ND	1.0	μg/L		
Chlorobenzene	ND	1.0	μg/L		
Chlorodibromomethane	ND	0.50	μg/L		
Chloroethane	ND	2.0	μg/L		
Chloroform	ND	2.0	μg/L		
Chloromethane	ND	2.0	μg/L		R-05, V-05
2-Chlorotoluene	ND	1.0	μg/L		
4-Chlorotoluene	ND	1.0	μg/L		
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	μg/L		V-05
1,2-Dibromoethane (EDB)	ND	0.50	μg/L		
Dibromomethane	ND	1.0	μg/L		
1,2-Dichlorobenzene	ND	1.0	μg/L		
1,3-Dichlorobenzene	ND	1.0	μg/L		
1,4-Dichlorobenzene	ND	1.0	μg/L		
Dichlorodifluoromethane (Freon 12)	ND	2.0	μg/L		
1,1-Dichloroethane	ND	1.0	μg/L		
1,2-Dichloroethane	ND	1.0	μg/L		
1,1-Dichloroethylene	ND	1.0	μg/L		
cis-1,2-Dichloroethylene	ND	1.0	μg/L		
trans-1,2-Dichloroethylene	ND	1.0	μg/L		
1,2-Dichloropropane	ND	1.0	μg/L		
1,3-Dichloropropane	ND	0.50	μg/L		
2,2-Dichloropropane	ND	1.0	μg/L		R-05
1,1-Dichloropropene	ND	0.50	μg/L		K 03
cis-1,3-Dichloropropene	ND	0.40	μg/L		
trans-1,3-Dichloropropene	ND	0.40	μg/L		
Diethyl Ether	ND ND	2.0	μg/L		
Diisopropyl Ether (DIPE)	ND ND	0.50	μg/L		
1,4-Dioxane	ND ND	50	μg/L		V-16
Ethylbenzene	ND ND	1.0	μg/L		v-10
Hexachlorobutadiene	ND ND	0.50	μg/L μg/L		
2-Hexanone (MBK)	ND ND	10	μg/L μg/L		
Isopropylbenzene (Cumene)		1.0	μg/L μg/L		
p-Isopropyltoluene (p-Cymene)	ND	1.0	μg/L μg/L		
Methyl tert-Butyl Ether (MTBE)	ND ND	1.0	μg/L μg/L		
Methylene Chloride	ND ND	5.0	μg/L μg/L		
4-Methyl-2-pentanone (MIBK)	ND	10	μg/L μg/L		
1 1110tily 1-2-pentanone (MIDIC)	ND	10	μத/ ட		



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B071701 - SW-846 5030B										
Blank (B071701-BLK1)				Prepared &	Analyzed: 04	/24/13				
n-Propylbenzene	ND	1.0	μg/L							
Styrene	ND	1.0	μg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	μg/L							
Tetrachloroethylene	ND	1.0	μg/L							
Tetrahydrofuran	ND	2.0	μg/L							
Toluene	ND	1.0	μg/L							
1,2,3-Trichlorobenzene	ND	2.0	μg/L							L-04, V-05
1,2,4-Trichlorobenzene	ND	1.0	μg/L							
1,1,1-Trichloroethane	ND	1.0	μg/L							
1,1,2-Trichloroethane	ND	1.0	μg/L							
Trichloroethylene	ND	1.0	$\mu g \! / \! L$							
Trichlorofluoromethane (Freon 11)	ND	2.0	$\mu g \! / L$							
1,2,3-Trichloropropane	ND	2.0	$\mu g \! / \! L$							
1,2,4-Trimethylbenzene	ND	1.0	$\mu g/L$							
1,3,5-Trimethylbenzene	ND	1.0	μg/L							
Vinyl Chloride	ND	2.0	μg/L							
m+p Xylene	ND	2.0	μg/L							
o-Xylene	ND	1.0	$\mu g \! / \! L$							
Surrogate: 1,2-Dichloroethane-d4	23.7		μg/L	25.0		94.8	70-130			
Surrogate: Toluene-d8	24.7		μg/L	25.0		98.7	70-130			
Surrogate: 4-Bromofluorobenzene	24.9		μg/L	25.0		99.6	70-130			
LCS (B071701-BS1)				Prepared &	Analyzed: 04	/24/13				
Acetone	169	10	μg/L	100		169 *	40-160			L-06
tert-Amyl Methyl Ether (TAME)	9.49	5.0	μg/L	10.0		94.9	70-130			R-05
Benzene	10.8	1.0	μg/L	10.0		108	70-130			
Bromobenzene	10.5	1.0	μg/L	10.0		105	70-130			
Bromochloromethane	10.9	1.0	μg/L	10.0		109	70-130			
Bromodichloromethane	10.2	1.0	μg/L	10.0		102	70-130			
Bromoform	9.09	1.0	μg/L	10.0		90.9	70-130			
Bromomethane	4.88	2.0	μg/L	10.0		48.8	40-160			L-14, R-05
2-Butanone (MEK)	136	10	μg/L	100		136	40-160			L-14
n-Butylbenzene	11.1	1.0	μg/L	10.0		111	70-130			
sec-Butylbenzene	12.0	1.0	μg/L	10.0		120	70-130			
tert-Butylbenzene	12.0	1.0	μg/L	10.0		120	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.91	5.0	μg/L	10.0		99.1	70-130			R-05
Carbon Disulfide	13.5	5.0	μg/L	10.0		135 *				V-20, L-07
Carbon Tetrachloride	10.7	1.0	μg/L	10.0		107	70-130			3,2 37
Chlorobenzene	11.0	1.0	μg/L	10.0		110	70-130			
Chlorodibromomethane	10.2	0.50	μg/L	10.0		102	70-130			
Chloroethane	10.2	2.0	μg/L	10.0		109	70-130			
Chloroform	9.77	2.0	μg/L	10.0		97.7	70-130			
Chloromethane	7.05	2.0	μg/L μg/L	10.0		70.5	40-160			R-05, V-05
2-Chlorotoluene	11.3	1.0	μg/L μg/L	10.0		113	70-130			1. 05, 1-05
4-Chlorotoluene	11.7	1.0	μg/L μg/L	10.0		117	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	7.07	2.0	μg/L μg/L	10.0		70.7	70-130			V-05
1,2-Dibromoethane (EDB)	7.07 9.92	0.50	μg/L μg/L	10.0		99.2	70-130			v-03
Dibromomethane		1.0	μg/L μg/L	10.0		99.2	70-130			
1,2-Dichlorobenzene	9.74	1.0	μg/L μg/L	10.0		109	70-130			
1,3-Dichlorobenzene	10.9 11.4	1.0	μg/L μg/L	10.0		114	70-130			
	114	1.0	μ <u>⊭</u> /L	10.0		114	/U=1.3U			



Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B071701 - SW-846 5030B											
LCS (B071701-BS1)				Prepared &	Analyzed: 04	/24/13					
Dichlorodifluoromethane (Freon 12)	6.34	2.0	μg/L	10.0		63.4	40-160			L-14	
1,1-Dichloroethane	10.8	1.0	μg/L	10.0		108	70-130				
1,2-Dichloroethane	9.52	1.0	μg/L	10.0		95.2	70-130				
1,1-Dichloroethylene	11.2	1.0	μg/L	10.0		112	70-130				
cis-1,2-Dichloroethylene	10.6	1.0	μg/L	10.0		106	70-130				
trans-1,2-Dichloroethylene	11.9	1.0	μg/L	10.0		119	70-130				
1,2-Dichloropropane	10.6	1.0	μg/L	10.0		106	70-130				
1,3-Dichloropropane	9.81	0.50	μg/L	10.0		98.1	70-130				
2,2-Dichloropropane	9.45	1.0	μg/L	10.0		94.5	70-130			R-05	
1,1-Dichloropropene	11.0	0.50	μg/L	10.0		110	70-130				
cis-1,3-Dichloropropene	10.2	0.40	μg/L	10.0		102	70-130				
trans-1,3-Dichloropropene	10.8	0.40	μg/L	10.0		108	70-130				
Diethyl Ether	10.6	2.0	μg/L	10.0		106	70-130				
Diisopropyl Ether (DIPE)	12.6	0.50	μg/L	10.0		126	70-130				
1,4-Dioxane	93.7	50	μg/L	100		93.7	40-160			V-16	
Ethylbenzene	10.7	1.0	μg/L	10.0		107	70-130				
Hexachlorobutadiene	10.0	0.50	μg/L	10.0		100	70-130				
2-Hexanone (MBK)	124	10	μg/L	100		124	40-160				
Isopropylbenzene (Cumene)	11.1	1.0	μg/L	10.0		111	70-130				
p-Isopropyltoluene (p-Cymene)	11.4	1.0	μg/L	10.0		114	70-130				
Methyl tert-Butyl Ether (MTBE)	9.84	1.0	μg/L	10.0		98.4	70-130				
Methylene Chloride	11.4	5.0	μg/L	10.0		114	70-130				
4-Methyl-2-pentanone (MIBK)	94.1	10	μg/L	100		94.1	40-160				
Naphthalene	5.73	2.0	μg/L	10.0		57.3 *	70-130			L-04, V-05	
n-Propylbenzene	11.6	1.0	μg/L	10.0		116	70-130				
Styrene	10.7	1.0	μg/L	10.0		107	70-130				
1,1,1,2-Tetrachloroethane	10.7	1.0	μg/L	10.0		107	70-130				
1,1,2,2-Tetrachloroethane	8.60	0.50	μg/L	10.0		86.0	70-130				
Tetrachloroethylene	11.1	1.0	μg/L	10.0		111	70-130				
Tetrahydrofuran	10.4	2.0	μg/L	10.0		104	70-130				
Toluene	10.8	1.0	μg/L	10.0		108	70-130				
1,2,3-Trichlorobenzene	5.89	2.0	μg/L	10.0		58.9 *	70-130			L-04, V-05	
1,2,4-Trichlorobenzene	8.36	1.0	μg/L	10.0		83.6	70-130			*	
1,1,1-Trichloroethane	10.8	1.0	μg/L	10.0		108	70-130				
1,1,2-Trichloroethane	10.0	1.0	μg/L	10.0		100	70-130				
Trichloroethylene	10.4	1.0	μg/L	10.0		104	70-130				
Trichlorofluoromethane (Freon 11)	9.96	2.0	μg/L	10.0		99.6	70-130				
1,2,3-Trichloropropane	8.77	2.0	μg/L	10.0		87.7	70-130				
1,2,4-Trimethylbenzene	11.0	1.0	μg/L	10.0		110	70-130				
1,3,5-Trimethylbenzene	10.4	1.0	μg/L	10.0		104	70-130				
Vinyl Chloride	8.61	2.0	μg/L	10.0		86.1	70-130				
m+p Xylene	22.7	2.0	μg/L	20.0		114	70-130				
o-Xylene	11.0	1.0	μg/L	10.0		110	70-130				
Surrogate: 1,2-Dichloroethane-d4	24.4		μg/L	25.0		97.5	70-130				_
Surrogate: Toluene-d8	25.4		μg/L μg/L	25.0		102	70-130				
Surrogate: 4-Bromofluorobenzene	24.8		μg/L μg/L	25.0		99.4	70-130				



### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B071701 - SW-846 5030B										
LCS Dup (B071701-BSD1)				Prepared &	Analyzed: 04	/24/13				
Acetone	163	10	μg/L	100		163 *	40-160	3.18	20	L-06
tert-Amyl Methyl Ether (TAME)	12.2	5.0	μg/L	10.0		122	70-130	24.6	20	R-05
Benzene	10.9	1.0	μg/L	10.0		109	70-130	1.66	20	
Bromobenzene	10.4	1.0	μg/L	10.0		104	70-130	1.43	20	
Bromochloromethane	11.0	1.0	μg/L	10.0		110	70-130	0.183	20	
Bromodichloromethane	10.5	1.0	μg/L	10.0		105	70-130	2.71	20	
Bromoform	9.13	1.0	μg/L	10.0		91.3	70-130	0.439	20	
Bromomethane	6.40	2.0	μg/L	10.0		64.0	40-160	27.0		L-14, R-05
2-Butanone (MEK)	131	10	μg/L	100		131	40-160	4.06	20	L-14
n-Butylbenzene	10.9	1.0	μg/L	10.0		109	70-130	1.91	20	
sec-Butylbenzene	11.9	1.0	μg/L	10.0		119	70-130	0.839	20	
tert-Butylbenzene	11.1	1.0	μg/L	10.0		111	70-130	7.77	20	
tert-Butyl Ethyl Ether (TBEE)	12.5	5.0	μg/L	10.0		125	70-130	23.1		R-05
Carbon Disulfide	12.8	5.0	μg/L	10.0		128	70-130	5.08	20	V-20
Carbon Tetrachloride	10.6	1.0	μg/L	10.0		106	70-130	1.03	20	
Chlorobenzene	10.9	1.0	μg/L	10.0		109	70-130	1.64	20	
Chlorodibromomethane	10.4	0.50	μg/L	10.0		104	70-130	1.36	20	
Chloroethane	11.2	2.0	μg/L	10.0		112	70-130	2.89	20	
Chloroform	9.86	2.0	μg/L	10.0		98.6	70-130	0.917	20	
Chloromethane	9.10	2.0	μg/L	10.0		91.0	40-160	25.4		R-05, V-05
2-Chlorotoluene	11.2	1.0	μg/L	10.0		112	70-130	0.892	20	
4-Chlorotoluene	11.2	1.0	μg/L	10.0		112	70-130	4.20	20	
1,2-Dibromo-3-chloropropane (DBCP)	7.18	2.0	μg/L	10.0		71.8	70-130	1.54	20	V-05
1,2-Dibromoethane (EDB)	9.97	0.50	μg/L	10.0		99.7	70-130	0.503	20	
Dibromomethane	10.1	1.0	μg/L	10.0		101	70-130	3.33	20	
1,2-Dichlorobenzene 1,3-Dichlorobenzene	11.0	1.0 1.0	μg/L	10.0		110	70-130	1.10	20	
1,4-Dichlorobenzene	11.3	1.0	μg/L	10.0		113	70-130	1.32	20	
Dichlorodifluoromethane (Freon 12)	10.3	2.0	μg/L	10.0		103	70-130	1.16	20	T 14
1,1-Dichloroethane	6.46	1.0	μg/L μg/L	10.0 10.0		64.6 108	40-160 70-130	1.87 0.185	20 20	L-14
1,2-Dichloroethane	10.8	1.0	μg/L μg/L							
1,1-Dichloroethylene	9.60	1.0	μg/L μg/L	10.0 10.0		96.0 109	70-130 70-130	0.837 3.07	20 20	
cis-1,2-Dichloroethylene	10.9	1.0	μg/L μg/L	10.0		105	70-130	1.23	20	
trans-1,2-Dichloroethylene	10.5 11.6	1.0	μg/L	10.0		116	70-130	2.65	20	
1,2-Dichloropropane	10.9	1.0	μg/L μg/L	10.0		109	70-130	2.23	20	
1,3-Dichloropropane	10.9	0.50	μg/L	10.0		100	70-130	2.22	20	
2,2-Dichloropropane	11.8	1.0	μg/L	10.0		118	70-130	22.3		R-05
1,1-Dichloropropene	10.9	0.50	μg/L	10.0		109	70-130	1.55	20	10 00
cis-1,3-Dichloropropene	10.9	0.40	μg/L	10.0		109	70-130	6.64	20	
trans-1,3-Dichloropropene	12.2	0.40	μg/L	10.0		122	70-130	12.3	20	
Diethyl Ether	10.2	2.0	μg/L	10.0		102	70-130	3.66	20	
Diisopropyl Ether (DIPE)	12.4	0.50	μg/L	10.0		124	70-130	1.52	20	
1,4-Dioxane	99.8	50	μg/L	100		99.8	40-160	6.40	20	V-16
Ethylbenzene	10.5	1.0	μg/L	10.0		105	70-130	1.70	20	
Hexachlorobutadiene	10.5	0.50	μg/L	10.0		105	70-130	4.86	20	
2-Hexanone (MBK)	126	10	μg/L	100		126	40-160	1.10	20	
Isopropylbenzene (Cumene)	11.1	1.0	μg/L	10.0		111	70-130	0.271	20	
p-Isopropyltoluene (p-Cymene)	11.0	1.0	μg/L	10.0		110	70-130	3.38	20	
Methyl tert-Butyl Ether (MTBE)	12.0	1.0	μg/L	10.0		120	70-130	19.8	20	
Methylene Chloride	11.4	5.0	μg/L	10.0		114	70-130	0.264	20	
4-Methyl-2-pentanone (MIBK)	94.8	10	μg/L	100		94.8	40-160	0.678	20	
Naphthalene	5.92	2.0	μg/L	10.0		59.2 *	70-130	3.26	20	L-04, V-05

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B071701 - SW-846 5030B										
LCS Dup (B071701-BSD1)				Prepared & A	Analyzed: 04	/24/13				
-Propylbenzene	11.5	1.0	$\mu g/L$	10.0		115	70-130	0.866	20	
tyrene	10.8	1.0	μg/L	10.0		108	70-130	0.651	20	
,1,1,2-Tetrachloroethane	10.3	1.0	μg/L	10.0		103	70-130	3.99	20	
,1,2,2-Tetrachloroethane	8.88	0.50	μg/L	10.0		88.8	70-130	3.20	20	
etrachloroethylene	10.8	1.0	μg/L	10.0		108	70-130	2.64	20	
etrahydrofuran	10.3	2.0	μg/L	10.0		103	70-130	0.0967	20	
oluene	11.1	1.0	μg/L	10.0		111	70-130	1.92	20	
,2,3-Trichlorobenzene	6.00	2.0	μg/L	10.0		60.0 *	70-130	1.85	20	L-04, V-03
2,4-Trichlorobenzene	8.26	1.0	μg/L	10.0		82.6	70-130	1.20	20	
,1,1-Trichloroethane	11.0	1.0	μg/L	10.0		110	70-130	2.57	20	
,1,2-Trichloroethane	10.0	1.0	μg/L	10.0		100	70-130	0.00	20	
richloroethylene	10.6	1.0	μg/L	10.0		106	70-130	1.52	20	
richlorofluoromethane (Freon 11)	10.0	2.0	μg/L	10.0		100	70-130	0.900	20	
,2,3-Trichloropropane	8.62	2.0	μg/L	10.0		86.2	70-130	1.73	20	
2,4-Trimethylbenzene	10.7	1.0	μg/L	10.0		107	70-130	3.03	20	
,3,5-Trimethylbenzene	10.3	1.0	μg/L	10.0		103	70-130	1.06	20	
'inyl Chloride	9.26	2.0	$\mu g/L$	10.0		92.6	70-130	7.27	20	
n+p Xylene	22.4	2.0	μg/L	20.0		112	70-130	1.55	20	
-Xylene	10.9	1.0	μg/L	10.0		109	70-130	1.55	20	
urrogate: 1,2-Dichloroethane-d4	24.0		μg/L	25.0		96.1	70-130			
urrogate: Toluene-d8	25.9		μg/L	25.0		104	70-130			
urrogate: 4-Bromofluorobenzene	25.0		μg/L	25.0		99.9	70-130			
Batch B071755 - SW-846 5030B										
Hank (D071755 DL I/1)				Prepared: 04	/25/13 Anal	yzed: 04/26/	13			
Ialik (DU/1/55-DLK1)										
	ND	10	μg/L							R-05
cetone	ND ND	10 5.0	μg/L μg/L							R-05
cetone ert-Amyl Methyl Ether (TAME)										R-05
Acetone ert-Amyl Methyl Ether (TAME) Benzene	ND	5.0	$\mu g/L$							R-05
ccetone ert-Amyl Methyl Ether (TAME) genzene gromobenzene	ND ND	5.0 1.0	μg/L μg/L							R-05
acetone ert-Amyl Methyl Ether (TAME) denzene fromobenzene fromochloromethane	ND ND ND	5.0 1.0 1.0	μg/L μg/L μg/L							R-05
cetone ert-Amyl Methyl Ether (TAME) enzene romobenzene romochloromethane romodichloromethane	ND ND ND ND	5.0 1.0 1.0 1.0	μg/L μg/L μg/L μg/L							R-05
cetone ert-Amyl Methyl Ether (TAME) enzene romobenzene romochloromethane romodichloromethane romoform	ND ND ND ND ND	5.0 1.0 1.0 1.0	μg/L μg/L μg/L μg/L μg/L							R-05
cretone ert-Amyl Methyl Ether (TAME) senzene sromobenzene sromochloromethane sromoform sromomethane	ND ND ND ND ND	5.0 1.0 1.0 1.0 1.0	μg/L μg/L μg/L μg/L μg/L μg/L							
cretone ert-Amyl Methyl Ether (TAME) senzene sromobenzene sromochloromethane sromoform sromomethane sromomethane	ND ND ND ND ND ND ND	5.0 1.0 1.0 1.0 1.0 1.0 2.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cretone ert-Amyl Methyl Ether (TAME) denzene fromobenzene fromochloromethane fromodichloromethane fromomethane fromomethane fromomethane fromomethane fromomethane fromomethane	ND ND ND ND ND ND ND ND ND	5.0 1.0 1.0 1.0 1.0 1.0 2.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
acetone ert-Amyl Methyl Ether (TAME) denzene fromobenzene fromochloromethane fromoform fromomethane fromomethane fromomethane fromomethane fromomethane fromomethane fromomethane fromomethane fromomethane -Butanone (MEK) -Butylbenzene ec-Butylbenzene	ND	5.0 1.0 1.0 1.0 1.0 1.0 2.0 10	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cretone ert-Amyl Methyl Ether (TAME) ernzene erromobenzene erromochloromethane erromoform erromomethane erromometh	ND ND ND ND ND ND ND ND ND ND ND ND ND N	5.0 1.0 1.0 1.0 1.0 2.0 10 1.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
Acctone ert-Amyl Methyl Ether (TAME) Benzene Bromobenzene Bromochloromethane Bromoform Bromomethane -Butanone (MEK) -Butylbenzene ec-Butylbenzene ert-Butyl Ethyl Ether (TBEE)	ND ND ND N	5.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
Accetone ert-Amyl Methyl Ether (TAME) Benzene Bromobenzene Bromochloromethane Bromoform Bromomethane -Butanone (MEK) -Butylbenzene ect-Butylbenzene ert-Butyl Ethyl Ether (TBEE) Carbon Disulfide	ND ND ND N	5.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0 1.0 5.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cetone ert-Amyl Methyl Ether (TAME) denzene fromobenzene fromochloromethane fromodichloromethane fromomethane	ND ND ND ND ND ND ND ND ND ND ND ND ND N	5.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0 5.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cetone ert-Amyl Methyl Ether (TAME) denzene fromobenzene fromochloromethane fromodichloromethane fromomethane	ND ND ND ND ND ND ND ND ND ND ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0 5.0 5.0 1.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cretone crt-Amyl Methyl Ether (TAME) denzene dromobenzene dromochloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromomethane dromodichloromomethane dromodichloromomethane	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0 5.0 5.0 1.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cretone ert-Amyl Methyl Ether (TAME) denzene dromobenzene dromochloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromodichloromethane dromomethane	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0 5.0 5.0 1.0 1.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cetone ert-Amyl Methyl Ether (TAME) enzene romobenzene romochloromethane romodichloromethane romoform romomethane -Butanone (MEK) -Butylbenzene ert-Butylbenzene ert-Butylbenzene ert-Butyl Ethyl Ether (TBEE) arbon Disulfide arbon Tetrachloride hlorobenzene hlorodibromomethane hloroethane hloroform	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0 5.0 5.0 1.0 0.50 2.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05
cetone rrt-Amyl Methyl Ether (TAME) enzene romobenzene romochloromethane romodichloromethane romomethane -Butanone (MEK) -Butylbenzene -c-Butylbenzene rrt-Butyl Ethyl Ether (TBEE) arbon Disulfide arbon Tetrachloride hlorodenzene hlorodibromomethane hloroethane hloroform hloromethane	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 2.0 10 1.0 1.0 5.0 5.0 1.0 0.50 2.0 2.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05 R-05
cetone rrt-Amyl Methyl Ether (TAME) enzene romobenzene romochloromethane romodichloromethane romomethane -Butanone (MEK) -Butylbenzene ex-Butylbenzene ext-Butylbenzene rrt-Butyl Ethyl Ether (TBEE) arbon Disulfide arbon Tetrachloride hlorodenzene hlorodibromomethane hloroform hloroform hloromethane -Chlorotoluene	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05 R-05
cetone rrt-Amyl Methyl Ether (TAME) enzene romobenzene romochloromethane romodichloromethane romomomethane -Butanone (MEK) -Butylbenzene ec-Butylbenzene rrt-Butylbenzene rrt-Butyl Ethyl Ether (TBEE) arbon Disulfide arbon Tetrachloride hlorodebraene hlorodibromomethane hloroform hloromethane -Chlorotoluene -Chlorotoluene	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05 R-05
cetone ert-Amyl Methyl Ether (TAME) enzene romobenzene romochloromethane romodichloromethane romomomethane -Butanone (MEK) -Butylbenzene ert-Butylbenzene ert-Butylbenzene ert-Butyl Ethyl Ether (TBEE) tarbon Disulfide arbon Tetrachloride hlorodenzene hlorodibromomethane hloroform hloromethane -Chlorotoluene	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05 R-05
cetone ert-Amyl Methyl Ether (TAME) denzene fromobenzene fromochloromethane fromodichloromethane fromomethane	ND ND ND ND ND ND ND ND ND ND ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05 R-05
Blank (B071755-BLK1) Acetone ert-Amyl Methyl Ether (TAME) Benzene Bromobenzene Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane ert-Butylbenzene ert-Butylbenzene ert-Butylbenzene ert-Butyl Ethyl Ether (TBEE) Carbon Disulfide Carbon Tetrachloride Chlorodibromomethane Chlorodibromomethane Chloroform Chloroform Chlorotoluene -Chlorotoluene	ND ND ND N	5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L							R-05 R-05



		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Dlank (D071755 DI V1)				Propored: 04/25/12 Applyzed: 04/26/12	
Blank (B071755-BLK1) ,4-Dichlorobenzene	ND	1.0	μg/L	Prepared: 04/25/13 Analyzed: 04/26/13	
Dichlorodifluoromethane (Freon 12)	ND	2.0	μg/L μg/L		
,1-Dichloroethane	ND ND	1.0	μg/L μg/L		
,2-Dichloroethane	ND ND	1.0	μg/L		
,1-Dichloroethylene	ND	1.0	μg/L		
is-1,2-Dichloroethylene	ND ND	1.0	μg/L		
ans-1,2-Dichloroethylene	ND	1.0	μg/L		
,2-Dichloropropane	ND	1.0	μg/L		
3-Dichloropropane	ND	0.50	μg/L μg/L		
2-Dichloropropane	ND	1.0	μg/L		
1-Dichloropropene	ND	0.50	μg/L		
s-1,3-Dichloropropene	ND	0.40	μg/L		
ans-1,3-Dichloropropene	ND	0.40	μg/L		
iethyl Ether	ND ND	2.0	μg/L μg/L		
iisopropyl Ether (DIPE)	ND ND	0.50	μg/L μg/L		
4-Dioxane	ND ND	50	μg/L μg/L		V-16
thylbenzene	ND ND	1.0	μg/L μg/L		V-10
exachlorobutadiene	ND	0.50	μg/L μg/L		
Hexanone (MBK)	ND ND	10	μg/L		
opropylbenzene (Cumene)	ND	1.0	μg/L		
Isopropyltoluene (p-Cymene)	ND	1.0	μg/L		
ethyl tert-Butyl Ether (MTBE)	ND ND	1.0	μg/L		
ethylene Chloride	ND ND	5.0	μg/L		
Methyl-2-pentanone (MIBK)	ND ND	10	μg/L		
aphthalene	ND ND	2.0	μg/L		R-05, V-0
Propylbenzene	ND	1.0	μg/L		R-03, V-0.
tyrene	ND ND	1.0	μg/L		
1,1,2-Tetrachloroethane	ND ND	1.0	μg/L μg/L		
1,2,2-Tetrachloroethane	ND ND	0.50	μg/L		
etrachloroethylene		1.0	μg/L		
etrahydrofuran	ND ND	2.0	μg/L μg/L		
oluene		1.0	μg/L μg/L		
2,3-Trichlorobenzene	ND	2.0	μg/L μg/L		R-05, V-0
2,4-Trichlorobenzene	ND	1.0	μg/L		V-05
1,1-Trichloroethane	ND	1.0	μg/L μg/L		<b>V-</b> 03
1,2-Trichloroethane	ND ND	1.0	μg/L μg/L		
richloroethylene		1.0	μg/L μg/L		
richlorofluoromethane (Freon 11)	ND	2.0	μg/L μg/L		
2,3-Trichloropropane	ND	2.0	μg/L μg/L		
2,4-Trimethylbenzene	ND ND	1.0	μg/L μg/L		
3,5-Trimethylbenzene		1.0	μg/L μg/L		
inyl Chloride	ND ND	2.0	μg/L μg/L		
+p Xylene	ND	2.0	μg/L μg/L		
-Xylene	ND ND	1.0	μg/L μg/L		
urrogate: 1,2-Dichloroethane-d4	26.1		μg/L	25.0 104 70-130	
arrogate: Toluene-d8	25.7		μg/L μg/L	25.0 103 70-130	
nrogate: 4-Bromofluorobenzene	23.7		μg/L μg/L	25.0 94.8 70-130	



### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B071755 - SW-846 5030B										
LCS (B071755-BS1)				Prepared: 04	/25/13 Analy	zed: 04/26/1	.3			
Acetone	132	10	μg/L	100		132	40-160			L-14, R-05
tert-Amyl Methyl Ether (TAME)	10.9	5.0	μg/L	10.0		109	70-130			
Benzene	11.6	1.0	μg/L	10.0		116	70-130			
Bromobenzene	10.6	1.0	μg/L	10.0		106	70-130			
Bromochloromethane	11.5	1.0	μg/L	10.0		115	70-130			
Bromodichloromethane	10.2	1.0	μg/L	10.0		102	70-130			
Bromoform	9.45	1.0	μg/L	10.0		94.5	70-130			
Bromomethane	6.22	2.0	μg/L	10.0		62.2	40-160			L-14, R-05, V-20
2-Butanone (MEK)	127	10	μg/L	100		127	40-160			R-05
n-Butylbenzene	10.9	1.0	μg/L	10.0		109	70-130			
sec-Butylbenzene	11.7	1.0	μg/L	10.0		117	70-130			
tert-Butylbenzene	11.6	1.0	μg/L	10.0		116	70-130			
tert-Butyl Ethyl Ether (TBEE)	10.9	5.0	μg/L	10.0		109	70-130			1 00 11 00
Carbon Disulfide	14.2	5.0	μg/L	10.0		142 *	70-130			L-02, V-20
Carbon Tetrachloride	10.7	1.0	μg/L	10.0		107	70-130			
Chlorobenzene	10.9	1.0	μg/L	10.0		109	70-130			
Chlorodibromomethane	10.2	0.50	μg/L	10.0		102	70-130			
Chloroform	11.7	2.0	μg/L	10.0		117	70-130			
Chloromothono	9.89	2.0	μg/L	10.0		98.9	70-130			D 05 W 20
Chloroteluare	8.52	2.0	μg/L	10.0		85.2	40-160			R-05, V-20
2-Chlorotoluene	11.1	1.0	μg/L	10.0		111	70-130			
4-Chlorotoluene	11.2	1.0	μg/L	10.0		112	70-130			D 05 W 05
1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB)	9.27	2.0 0.50	μg/L μg/L	10.0		92.7 106	70-130 70-130			R-05, V-05
Dibromomethane	10.6	1.0	μg/L μg/L	10.0 10.0			70-130			
1,2-Dichlorobenzene	10.6	1.0	μg/L μg/L	10.0		106 113	70-130			
1,3-Dichlorobenzene	11.3 11.4	1.0	μg/L μg/L	10.0		114	70-130			
1,4-Dichlorobenzene	10.1	1.0	μg/L μg/L	10.0		101	70-130			
Dichlorodifluoromethane (Freon 12)	7.71	2.0	μg/L μg/L	10.0		77.1	40-160			
1,1-Dichloroethane	11.4	1.0	μg/L	10.0		114	70-130			
1,2-Dichloroethane	10.0	1.0	μg/L	10.0		100	70-130			
1,1-Dichloroethylene	11.4	1.0	μg/L	10.0		114	70-130			
cis-1,2-Dichloroethylene	11.0	1.0	μg/L	10.0		110	70-130			
trans-1,2-Dichloroethylene	12.1	1.0	μg/L	10.0		121	70-130			
1,2-Dichloropropane	11.2	1.0	μg/L	10.0		112	70-130			
1,3-Dichloropropane	10.6	0.50	μg/L	10.0		106	70-130			
2,2-Dichloropropane	10.5	1.0	μg/L	10.0		105	70-130			
1,1-Dichloropropene	11.4	0.50	μg/L	10.0		114	70-130			
cis-1,3-Dichloropropene	10.7	0.40	μg/L	10.0		107	70-130			
trans-1,3-Dichloropropene	11.7	0.40	μg/L	10.0		117	70-130			
Diethyl Ether	11.6	2.0	μg/L	10.0		116	70-130			
Diisopropyl Ether (DIPE)	13.6	0.50	μg/L	10.0		136 *	70-130			L-02
1,4-Dioxane	121	50	μg/L	100		121	40-160			V-16
Ethylbenzene	10.7	1.0	μg/L	10.0		107	70-130			
Hexachlorobutadiene	10.3	0.50	μg/L	10.0		103	70-130			
2-Hexanone (MBK)	118	10	μg/L	100		118	40-160			
Isopropylbenzene (Cumene)	10.9	1.0	μg/L	10.0		109	70-130			
p-Isopropyltoluene (p-Cymene)	11.2	1.0	$\mu g\!/L$	10.0		112	70-130			
Methyl tert-Butyl Ether (MTBE)	11.7	1.0	$\mu g\!/L$	10.0		117	70-130			
Methylene Chloride	11.4	5.0	$\mu g/L$	10.0		114	70-130			
4-Methyl-2-pentanone (MIBK)	117	10	$\mu g\!/L$	100		117	40-160			
Naphthalene	7.92	2.0	μg/L	10.0		79.2	70-130			R-05, V-05

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### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result %RI	%REC EC Limits	RPD	RPD Limit	Notes
Batch B071755 - SW-846 5030B									
LCS (B071755-BS1)				Prepared: 04	1/25/13 Analyzed: 04	1/26/13			
n-Propylbenzene	11.2	1.0	μg/L	10.0	112	70-130			
Styrene	10.6	1.0	μg/L	10.0	106	70-130			
1,1,1,2-Tetrachloroethane	10.4	1.0	μg/L	10.0	104	70-130			
1,1,2,2-Tetrachloroethane	10.2	0.50	μg/L	10.0	102	70-130			
Tetrachloroethylene	10.8	1.0	$\mu g\!/L$	10.0	108	70-130			
Гetrahydrofuran	11.5	2.0	$\mu g\!/L$	10.0	115	70-130			
Toluene	11.0	1.0	μg/L	10.0	110	70-130			
,2,3-Trichlorobenzene	8.09	2.0	$\mu g/L$	10.0	80.9	70-130			R-05, V-05
1,2,4-Trichlorobenzene	9.84	1.0	$\mu g/L$	10.0	98.4	70-130			V-05
1,1,1-Trichloroethane	10.9	1.0	μg/L	10.0	109	70-130			
1,1,2-Trichloroethane	10.4	1.0	μg/L	10.0	104	70-130			
Trichloroethylene	10.6	1.0	$\mu g\!/L$	10.0	106	70-130			
Trichlorofluoromethane (Freon 11)	10.2	2.0	$\mu g/L$	10.0	102	70-130			
1,2,3-Trichloropropane	10.2	2.0	μg/L	10.0	102	70-130			
1,2,4-Trimethylbenzene	10.8	1.0	μg/L	10.0	108	70-130			
1,3,5-Trimethylbenzene	10.2	1.0	μg/L	10.0	102	70-130			
Vinyl Chloride	9.40	2.0	μg/L	10.0	94.0	70-130			
m+p Xylene	21.6	2.0	μg/L	20.0	108	70-130			
o-Xylene	11.2	1.0	μg/L	10.0	112	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.5		μg/L	25.0	102	70-130			
Surrogate: Toluene-d8	25.8		μg/L	25.0	103	70-130			
Surrogate: 4-Bromofluorobenzene	24.5		μg/L	25.0	98.1				
-									
LCS Dup (B071755-BSD1)		10			1/25/13 Analyzed: 04				
Acetone	105	10	μg/L	100	105	40-160		* 20	R-05
tert-Amyl Methyl Ether (TAME)	11.6	5.0	μg/L	10.0	116	70-130	6.39	20	
Benzene	11.5	1.0	μg/L	10.0	115	70-130	0.693	20	
Bromobenzene	10.6	1.0	μg/L	10.0	106	70-130	0.378	20	
Bromochloromethane	12.0	1.0	μg/L	10.0	120	70-130	3.66	20	
Bromodichloromethane	10.2	1.0	μg/L	10.0	102	70-130	0.00	20	
Bromoform	8.82	1.0	μg/L	10.0	88.2		6.90	20	
Bromomethane	8.02	2.0	μg/L	10.0	80.2			* 20	R-05, V-20
2-Butanone (MEK)	102	10	μg/L	100	102	40-160	2110	* 20	R-05
n-Butylbenzene	11.5	1.0	μg/L	10.0	115	70-130	5.19	20	
sec-Butylbenzene	12.2	1.0	μg/L	10.0	122	70-130	4.52	20	
tert-Butylbenzene	11.9	1.0	μg/L	10.0	119	70-130	2.38	20	
tert-Butyl Ethyl Ether (TBEE)	12.4	5.0	μg/L	10.0	124	70-130	12.5	20	
Carbon Disulfide	14.2	5.0	μg/L	10.0	142		0.281	20	L-02, V-20
Carbon Tetrachloride	10.9	1.0	μg/L	10.0	109	70-130	2.04	20	
Chlorobenzene	11.0	1.0	μg/L	10.0	110		1.09	20	
Chlorodibromomethane	10.2	0.50	μg/L	10.0	102	70-130	0.293	20	
Chloroethane	12.5	2.0	μg/L	10.0	125	70-130	6.53	20	
Chloroform	10.3	2.0	μg/L	10.0	103	70-130	4.45	20	
Chloromethane	10.7	2.0	μg/L	10.0	107	40-160	22.9	* 20	R-05, V-20
2-Chlorotoluene	11.3	1.0	μg/L	10.0	113	70-130	1.69	20	
4-Chlorotoluene	11.2	1.0	μg/L	10.0	112	70-130	0.178	20	
1,2-Dibromo-3-chloropropane (DBCP)	7.12	2.0	μg/L	10.0	71.2	70-130	26.2	* 20	V-05, R-05
1,2-Dibromoethane (EDB)	10.2	0.50	$\mu g\!/L$	10.0	102	70-130	4.71	20	
Dibromomethane	10.1	1.0	$\mu g/L$	10.0	101	70-130	4.93	20	
1,2-Dichlorobenzene	11.3	1.0	$\mu g/L$	10.0	113	70-130	0.265	20	
1,3-Dichlorobenzene	11.5	1.0	μg/L	10.0	115	70-130	0.262	20	
-,	11.0								

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		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B071755 - SW-846 5030B										
LCS Dup (B071755-BSD1)				Prepared: 04	1/25/13 Analy	yzed: 04/26/	13			
Dichlorodifluoromethane (Freon 12)	8.02	2.0	μg/L	10.0		80.2	40-160	3.94	20	†
1,1-Dichloroethane	11.6	1.0	μg/L	10.0		116	70-130	1.57	20	
1,2-Dichloroethane	9.57	1.0	μg/L	10.0		95.7	70-130	4.39	20	
1,1-Dichloroethylene	11.6	1.0	μg/L	10.0		116	70-130	1.99	20	
cis-1,2-Dichloroethylene	11.2	1.0	μg/L	10.0		112	70-130	1.35	20	
trans-1,2-Dichloroethylene	12.2	1.0	μg/L	10.0		122	70-130	0.494	20	
1,2-Dichloropropane	11.2	1.0	μg/L	10.0		112	70-130	0.0889	20	
1,3-Dichloropropane	10.3	0.50	μg/L	10.0		103	70-130	3.07	20	
2,2-Dichloropropane	11.6	1.0	μg/L	10.0		116	70-130	10.0	20	
1,1-Dichloropropene	11.4	0.50	μg/L	10.0		114	70-130	0.264	20	
cis-1,3-Dichloropropene	11.0	0.40	μg/L	10.0		110	70-130	2.77	20	
trans-1,3-Dichloropropene	11.9	0.40	μg/L	10.0		119	70-130	1.78	20	
Diethyl Ether	11.5	2.0	μg/L	10.0		115	70-130	1.39	20	
Diisopropyl Ether (DIPE)	13.8	0.50	μg/L	10.0		138 *		1.38	20	L-02
1,4-Dioxane	101	50	μg/L	100		101	40-160	18.3	20	V-16 †
Ethylbenzene	10.7	1.0	μg/L	10.0		107	70-130	0.373	20	, 25
Hexachlorobutadiene	10.5	0.50	μg/L	10.0		105	70-130	2.31	20	
2-Hexanone (MBK)	100	10	μg/L	100		100	40-160	15.9	20	†
Isopropylbenzene (Cumene)	11.1	1.0	μg/L	10.0		111	70-130	1.45	20	'
p-Isopropyltoluene (p-Cymene)		1.0	μg/L μg/L	10.0		111	70-130	1.34	20	
Methyl tert-Butyl Ether (MTBE)	11.1	1.0	μg/L μg/L	10.0		122	70-130	3.94	20	
Methylene Chloride	12.2	5.0	μg/L μg/L	10.0		118	70-130	3.28	20	
4-Methyl-2-pentanone (MIBK)	11.8	10	μg/L μg/L							†
	103	2.0	μg/L μg/L	100		103	40-160	12.7 <b>24.5</b>	20	L-07A, R-05, V-05
Naphthalene n-Propylbenzene	6.19	1.0	μg/L μg/L	10.0		61.9 *				L-0/A, K-03, V-03
**	11.3			10.0		113	70-130	1.25	20	
Styrene	10.7	1.0	μg/L	10.0		107	70-130	1.22	20	
1,1,2-Tetrachloroethane	10.0	1.0	μg/L	10.0		100	70-130	3.23	20	
1,1,2,2-Tetrachloroethane	9.20	0.50	μg/L	10.0		92.0	70-130	10.2	20	
Tetrachloroethylene	11.0	1.0	μg/L	10.0		110	70-130	2.21	20	
Tetrahydrofuran	10.2	2.0	μg/L	10.0		102	70-130	11.8	20	
Toluene	11.0	1.0	μg/L	10.0		110	70-130	0.364	20	
1,2,3-Trichlorobenzene	6.40	2.0	μg/L	10.0		64.0 *		23.3		L-07A, R-05, V-05
1,2,4-Trichlorobenzene	8.43	1.0	μg/L	10.0		84.3	70-130	15.4	20	V-05
1,1,1-Trichloroethane	11.2	1.0	μg/L	10.0		112	70-130	2.17	20	
1,1,2-Trichloroethane	10.2	1.0	μg/L	10.0		102	70-130	2.72	20	
Trichloroethylene	10.5	1.0	μg/L	10.0		105	70-130	0.758	20	
Trichlorofluoromethane (Freon 11)	10.8	2.0	μg/L	10.0		108	70-130	6.29	20	
1,2,3-Trichloropropane	9.09	2.0	μg/L	10.0		90.9	70-130	11.4	20	
1,2,4-Trimethylbenzene	11.0	1.0	μg/L	10.0		110	70-130	2.39	20	
1,3,5-Trimethylbenzene	10.3	1.0	μg/L	10.0		103	70-130	0.685	20	
Vinyl Chloride	10.1	2.0	μg/L	10.0		101	70-130	7.57	20	
m+p Xylene	22.2	2.0	μg/L	20.0		111	70-130	2.65	20	
o-Xylene	11.4	1.0	μg/L	10.0		114	70-130	1.24	20	
Surrogate: 1,2-Dichloroethane-d4	25.0	<u> </u>	μg/L	25.0	<u></u>	100	70-130			
Surrogate: Toluene-d8	25.6		$\mu g/L$	25.0		103	70-130			
Surrogate: 4-Bromofluorobenzene	24.5		μg/L	25.0		98.1	70-130			



### Petroleum Hydrocarbons Analyses - EPH - Quality Control

A 1.	<del>.</del> .	Reporting	** *	Spike	Source	0/70	%REC	P	RPD	3.7
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B071775 - SW-846 3510C										
Blank (B071775-BLK1)				Prepared: 04	1/25/13 Analy	yzed: 04/30/.	13			
C9-C18 Aliphatics	ND	100	μg/L							
C19-C36 Aliphatics	ND	100	μg/L μg/I							
Unadjusted C11-C22 Aromatics C11-C22 Aromatics	ND	100	μg/L μσ/L							
C11-C22 Aromatics Acenaphthene	ND ND	100 2.0	μg/L μg/L							
Acenaphthylene	ND ND	2.0	μg/L μg/L							
Anthracene	ND ND	2.0	μg/L μg/L							
Senzo(a)anthracene	ND ND	2.0	μg/L μg/L							
Benzo(a)pyrene	ND ND	2.0	μg/L μg/L							
Benzo(b)fluoranthene	ND ND	2.0	μg/L μg/L							
Benzo(g,h,i)perylene	ND ND	2.0	μg/L μg/L							
Benzo(k)fluoranthene	ND ND	2.0	μg/L μg/L							
Chrysene	ND	2.0	μg/L							
Dibenz(a,h)anthracene	ND	2.0	μg/L							
Fluoranthene	ND	2.0	μg/L							
Fluorene	ND	2.0	μg/L							
Indeno(1,2,3-cd)pyrene	ND	2.0	μg/L							
2-Methylnaphthalene	ND	2.0	μg/L							
Naphthalene	ND	2.0	μg/L							
Phenanthrene	ND	2.0	μg/L							
Pyrene	ND	2.0	μg/L							
Surrogate: Chlorooctadecane (COD)	74.7		μg/L	99.8		74.8	40-140			
Surrogate: o-Terphenyl (OTP)	74.6		μg/L	100		74.6	40-140			
Surrogate: 2-Bromonaphthalene	90.1		μg/L	100		90.1	40-140			
Surrogate: 2-Fluorobiphenyl	91.3		μg/L	100		91.3	40-140			
LCS (B071775-BS1)				Prepared: 04	1/25/13 Analy	yzed: 04/30/1	13			
Acenaphthene	77.2	2.0	μg/L	100		77.2	40-140			
Acenaphthylene	74.3	2.0	$\mu g/L$	100		74.3	40-140			
Anthracene	79.9	2.0	μg/L	100		79.9	40-140			
Benzo(a)anthracene	80.9	2.0	μg/L	100		80.9	40-140			
Benzo(a)pyrene	78.7	2.0	μg/L	100		78.7	40-140			
Benzo(b)fluoranthene	81.7	2.0	μg/L	100		81.7	40-140			
Benzo(g,h,i)perylene	85.4	2.0	μg/L	100		85.4	40-140			
Benzo(k)fluoranthene	80.3	2.0	μg/L	100		80.3	40-140			
Chrysene	76.2	2.0	μg/L	100		76.2	40-140			
Dibenz(a,h)anthracene	84.9	2.0	μg/L	100		84.9	40-140			
Fluoranthene	79.8	2.0	μg/L	100		79.8	40-140			
Fluorene	79.6	2.0	μg/L	100		79.6	40-140			
Indeno(1,2,3-cd)pyrene	86.6	2.0	μg/L	100		86.6	40-140			
2-Methylnaphthalene	73.1	2.0	μg/L	100		73.1	40-140			
Naphthalene	64.1	2.0	μg/L	100		64.1	40-140			
Phenanthrene	80.6	2.0	μg/L	100		80.6	40-140			
Pyrene	77.7	2.0	μg/L	100		77.7	40-140			
n-Decane	52.5	2.0	μg/L	100		52.5	40-140			
n-Docosane	84.8	2.0	μg/L	100		84.8	40-140			
n-Dodecane	69.5	2.0	μg/L	100		69.5	40-140			
-Eicosane	84.6	2.0 2.0	μg/L μg/L	100		84.6	40-140			
Havacocana		2.0	110/1.	100		80.9	40-140			
	80.9									
n-Hexacosane n-Hexadecane n-Hexatriacontane	80.9 86.6 86.9	2.0 2.0 2.0	μg/L μg/L μg/L	100 100		86.6 86.9	40-140 40-140			



### Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B071775 - SW-846 3510C										
LCS (B071775-BS1)				Prepared: 04	/25/13 Analyz	ed: 04/30/	13			
-Nonane	39.1	2.0	μg/L	100		39.1	30-140			
n-Octacosane	79.4	2.0	μg/L	100		79.4	40-140			
-Octadecane	86.1	2.0	μg/L	100		86.1	40-140			
-Tetracosane	82.2	2.0	μg/L	100		82.2	40-140			
-Tetradecane	80.8	2.0	μg/L	100		80.8	40-140			
-Triacontane	81.2	2.0	μg/L	100		81.2	40-140			
Naphthalene-aliphatic fraction	1.46	2.0	μg/L	100		1.46	0-5			
-Methylnaphthalene-aliphatic fraction	1.61	2.0	μg/L	100		1.61	0-5			
urrogate: Chlorooctadecane (COD)	74.3		μg/L	99.8		74.4	40-140			
urrogate: o-Terphenyl (OTP)	73.0		μg/L	100		73.0	40-140			
Surrogate: 2-Bromonaphthalene	89.8		μg/L	100		89.8	40-140			
urrogate: 2-Fluorobiphenyl	95.3		μg/L	100		95.3	40-140			
.CS Dup (B071775-BSD1)				Prepared: 04	./25/13 Analyz	ed: 04/30/	13			
Acenaphthene	78.5	2.0	μg/L	100		78.5	40-140	1.63	25	
cenaphthylene	75.6	2.0	μg/L	100		75.6	40-140	1.66	25	
anthracene	80.7	2.0	μg/L	100		80.7	40-140	0.952	25	
enzo(a)anthracene	82.0	2.0	μg/L	100		82.0	40-140	1.28	25	
enzo(a)pyrene	79.8	2.0	μg/L	100		79.8	40-140	1.38	25	
enzo(b)fluoranthene	82.9	2.0	μg/L	100		82.9	40-140	1.41	25	
enzo(g,h,i)perylene	86.7	2.0	μg/L	100		86.7	40-140	1.58	25	
enzo(k)fluoranthene	81.5	2.0	μg/L	100		81.5	40-140	1.39	25	
Chrysene	77.2	2.0	μg/L	100		77.2	40-140	1.27	25	
Dibenz(a,h)anthracene	86.3	2.0	μg/L	100		86.3	40-140	1.59	25	
luoranthene	80.6	2.0	μg/L	100		80.6	40-140	0.943	25	
luorene	80.9	2.0	μg/L	100		80.9	40-140	1.55	25	
ndeno(1,2,3-cd)pyrene	87.9	2.0	μg/L	100		87.9	40-140	1.54	25	
-Methylnaphthalene	74.6	2.0	μg/L	100		74.6	40-140	2.04	25	
Taphthalene	65.1	2.0	μg/L	100		65.1	40-140	1.49	25	
henanthrene	81.6	2.0	μg/L	100		81.6	40-140	1.19	25	
yrene	78.4	2.0	μg/L	100		78.4	40-140	0.900	25	
-Decane	47.2	2.0	μg/L	100		47.2	40-140	10.5	25	
-Docosane	79.6	2.0	μg/L	100		79.6	40-140	6.28	25	
-Dodecane	64.6	2.0	μg/L	100		64.6	40-140	7.30	25	
-Eicosane	79.5	2.0	μg/L	100		79.5	40-140	6.28	25	
-Hexacosane	75.9	2.0	μg/L	100		75.9	40-140	6.39	25	
-Hexadecane	81.7	2.0	μg/L	100		81.7	40-140	5.78	25	
-Hexatriacontane	83.2	2.0	μg/L	100		83.2	40-140	4.38	25	
-Nonadecane	80.5	2.0	μg/L	100		80.5	40-140	5.98	25	
-Nonane	34.9	2.0	μg/L	100		34.9	30-140	11.4	25	
-Octacosane	75.1	2.0	μg/L	100		75.1	40-140	5.54	25	
-Octadecane	81.3	2.0	μg/L	100		81.3	40-140	5.83	25	
Tetracosane	77.3	2.0	μg/L	100		77.3	40-140	6.10	25	
Tetradecane	76.4	2.0	μg/L	100		76.4	40-140	5.65	25	
-Triacontane	76.9	2.0	μg/L	100		76.9	40-140	5.53	25	
Japhthalene-aliphatic fraction	ND	2.0	μg/L	100			0-5			
Methylnaphthalene-aliphatic fraction	ND	2.0	μg/L	100			0-5			
urrogate: Chlorooctadecane (COD)	68.5		μg/L	99.8		68.6	40-140			
urrogate: o-Terphenyl (OTP)	73.0		μg/L	100		73.0	40-140			
urrogate: 2-Bromonaphthalene	88.7		μg/L	100		88.7	40-140			
urrogate: 2-Fluorobiphenyl	93.6		μg/L	100		93.6	40-140			



# 39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332 **QUALITY CONTROL**

#### Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B071856 - MA VPH										
Blank (B071856-BLK1)				Prepared &	Analyzed: 04	/26/13				
Unadjusted C5-C8 Aliphatics	ND	100	μg/L							
C5-C8 Aliphatics	ND	100	μg/L							
Unadjusted C9-C12 Aliphatics	ND	100	μg/L							
C9-C12 Aliphatics	ND	100	μg/L							
C9-C10 Aromatics	ND	100	$\mu g/L$							
Surrogate: 2,5-Dibromotoluene (FID)	37.0		μg/L	40.0		92.5	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	36.0		μg/L	40.0		90.0	70-130			
LCS (B071856-BS1)				Prepared &	Analyzed: 04	/26/13				
Benzene	105	1.0	μg/L	100		105	70-130			
Butylcyclohexane	99.7	1.0	μg/L	100		99.7	70-130			
Decane	106	1.0	μg/L	100		106	70-130			
Ethylbenzene	107	1.0	μg/L	100		107	70-130			
Methyl tert-Butyl Ether (MTBE)	102	1.0	μg/L	100		102	70-130			
2-Methylpentane	103	1.0	μg/L	100		103	70-130			
Naphthalene	111	5.0	μg/L	100		111	70-130			
Nonane	104	1.0	μg/L	100		104	70-130			
entane	83.0	1.0	μg/L	100		83.0	70-130			
oluene	107	1.0	μg/L	100		107	70-130			
,2,4-Trimethylbenzene	108	1.0	μg/L	100		108	70-130			
,2,4-Trimethylpentane	135	1.0	μg/L	100		135 *	70-130			R-05
n+p Xylene	220	2.0	μg/L	200		110	70-130			
-Xylene	108	1.0	μg/L	100		108	70-130			
durrogate: 2,5-Dibromotoluene (FID)	41.9		μg/L	40.0		105	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	43.6		μg/L	40.0		109	70-130			
LCS Dup (B071856-BSD1)				Prepared &	Analyzed: 04	/26/13				
Benzene	101	1.0	μg/L	100		101	70-130	3.81	25	
Butylcyclohexane	92.5	1.0	μg/L	100		92.5	70-130	7.58	25	
Decane	102	1.0	μg/L	100		102	70-130	3.97	25	
Ethylbenzene	102	1.0	μg/L	100		102	70-130	4.63	25	
Methyl tert-Butyl Ether (MTBE)	97.0	1.0	μg/L	100		97.0	70-130	4.67	25	
2-Methylpentane	89.1	1.0	μg/L	100		89.1	70-130	14.5	25	
Naphthalene	97.3	5.0	μg/L	100		97.3	70-130	13.3	25	
Vonane	92.0	1.0	μg/L	100		92.0	70-130	12.5	25	
Pentane	79.9	1.0	μg/L	100		79.9	70-130	3.80	25	
oluene	103	1.0	μg/L	100		103	70-130	3.97	25	
,2,4-Trimethylbenzene	103	1.0	μg/L	100		103	70-130	4.94	25	
,2,4-Trimethylpentane	87.3	1.0	μg/L	100		87.3	70-130	42.6		R-05
n+p Xylene	211	2.0	μg/L	200		105	70-130	4.22	25	
o-Xylene	104	1.0	μg/L	100		104	70-130	3.87	25	
Surrogate: 2,5-Dibromotoluene (FID)	39.7		μg/L	40.0		99.2	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	39.6		μg/L μg/L	40.0		99.0	70-130			



# 39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332 **QUALITY CONTROL**

#### Metals Analyses (Dissolved) - Quality Control

Propure de Analyzech (942-41)   Propure de Analyzech (942-41								0/5==			
#####################################	Analyte	Result		Units	-		%RFC		RPD		Notes
Propert & Analyzed:	Analyte	Result	Limit	Cints	Level	Result	701120	Liiiis	МЪ	Limit	110103
No.   No.	Batch B071685 - SW-846 7470A Prep										
Propert & Analyzet : bl   Septender   Se	Blank (B071685-BLK1)				Prepared & Analyzed: 04/24/13						
Mercury 0,001 88 0,00010 mg/L 0,00200 94.2 86.120    Prepared & Analyzect: 04/24/13   Prepared & A	Mercury	ND	0.00010	mg/L							
Mercury 0,001 88 0,00010 mg/L 0,00200 94.2 86.120    Prepared & Analyzect: 04/24/13   Prepared & A	LCS (B071685-BS1)				Prepared & A	Analyzed: 04	/24/13				
Properties	Mercury	0.00188	0.00010	mg/L				80-120			
Mercury 0,00190 0,00010 mg/L 0,00200 94,9 80-120 0,743 20  Duplicate (B071685-DUP) Source: 13D0894-1 Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Source: 13D0894-1 Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Source: 13D0894-1 Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared & Analyzed: 04/24/13  Marrix Spike (B071685-MS1) Prepared &	I CC D (B051/05 BCD1)				Duamanad &	A malumada 0.4	/2.4/12				
Deplicate (B071685-DUP1)         Source: 13D0894-01 mg/L         Prepared & Analyzed: 04/2-4/13         NC         20           Matrix Spike (B071685-MS1)         Source: 13D0894-01 mg/L         0.00200 mg/L         ND         93.6 mg/2-125         1.2 mg/2-125 <td></td> <td>0.00100</td> <td>0.00010</td> <td>ma/I</td> <td>•</td> <td>Anaryzeu: 04</td> <td></td> <td>90 120</td> <td>0.742</td> <td>20</td> <td></td>		0.00100	0.00010	ma/I	•	Anaryzeu: 04		90 120	0.742	20	
Mercury ND 0.00010 mg/L ND 1.00010 mg/L ND 1.00010 mg/L 0.000200 mg/L 0	Microury	0.00190	0.00010	mg/L	0.00200		94.9	80-120	0.743	20	
Matrix Spike (B071685-MS1)         Source: 13D0894-01         Prepared & Analyzed: 04/24/13           Mercuny         0,0010         mg/L         0,00200         ND         93.6         75-125           Bank (B071725-SW-846-3005A Dissolved           Prepared: 04/24/13 Analyzed: 04/25/13           Bank (B071725-BLK1)         Prepared: 04/24/13 Analyzed: 04/25/13           Arisminory         ND         1.0         µg/L           Arisminory         ND         0.40         µg/L           Beryllium         ND         0.0         µg/L           Lead         ND         1.0         µg/L           Lead         ND         0.50         µg/L           Silver         ND         0.50         µg/L           Silver         ND         0.50         µg/L           Silver         ND         0.50         µg/L           Vandium         ND         0.50         µg/L           Vandium         ND         0.50         µg/L           Vision         ND         0.50         µg/L           Vision         ND         0.50         µg/L           Vision         ND         0.50         µg/L         250         10	Duplicate (B071685-DUP1)	Sour			Prepared & A	Analyzed: 04	/24/13				
Mercury   0,00187   0,0010   mg/L   0,00200   ND   93.6   75-125	Mercury	ND	0.00010	mg/L		ND	)		NC	20	
Prepared: 04/24/13 Analyzed: 04/25/13   Analyzed:	Matrix Spike (B071685-MS1)	Sou	rce: 13D0894-	01	Prepared & A	Analyzed: 04	/24/13				
Prepared: 04/24/13   Analyzed: 04/25/13   Analyze	Mercury	0.00187	0.00010	mg/L	0.00200	ND	93.6	75-125			
Prepared: 04/24/13   Analyzed: 04/25/13   Analyze	Potob D071725 SW 946 2005 A Diosol-rod										
Artsenic ND 0.40 µg/L Artsenic ND 0.40 µg/L Barium ND 10 µg/L Beryllium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Chronium ND 0.50 µg/L Selenium ND 0.50 µg/L Selenium ND 0.50 µg/L Selenium ND 0.50 µg/L Selenium ND 0.50 µg/L Cadmium ND 0.50 µg/L Selenium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium ND 0.50 µg/L Cadmium 0.50 µg/L Cadmi	Daten 50/1/25 - 5 W -040 3005A DISSOIVEU										
Arsenic ND 0.40 µg/L Barium ND 10 µg/L Beryllium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Selenium ND 0.50 µg/L Selenium ND 0.50 µg/L Silver ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L 0.50 ND	Blank (B071725-BLK1)				Prepared: 04	/24/13 Anal	yzed: 04/25/	13			
Barium	·										
Seryllium											
Cadmium ND 0.50 µg/L Chromium ND 1.0 µg/L Lead ND 1.0 µg/L Nickel ND 5.0 µg/L Selenium ND 5.0 µg/L Silver ND 0.50 µg/L Chromium ND 0.50 µg/L Silver ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium ND 0.50 µg/L Chromium 269 5.0 µg/L 250 107 80-120 Chromium 265 50 µg/L 250 109 80-120 Chromium 272 2.0 µg/L 250 106 80-120 Chromium 279 2.5 µg/L 250 109 80-120 Chromium 266 5.0 µg/L 250 109 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 260 1.0 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 106 80-120 Chromium 280 25 µg/L 250 113 80-120 Chromium 280 25 µg/L 250 113 80-120 Chromium 280 25 µg/L 250 113 80-120 Chromium 280 25 µg/L 250 113 80-120											
Chromium   ND   1.0   µg/L											
ND											
Nickel ND 5.0 µg/L Selenium ND 5.0 µg/L Selenium ND 5.0 µg/L Silver ND 0.50 µg/L Thallium ND 0.20 µg/L Vanadium ND 5.0 µg/L Vanadium ND 5.0 µg/L  LCS (B071725-BS1) Prepared: 04/24/13 Analyzed: 04/25/13  Antimony 269 5.0 µg/L 250 107 80-120 Arsenic 272 2.0 µg/L 250 109 80-120 Barium 265 50 µg/L 250 106 80-120 Beryllium 272 2.0 µg/L 250 112 80-120 Cadmium 279 2.5 µg/L 250 106 80-120 Cadmium 279 2.5 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 5.0 µg/L 250 106 80-120 Chromium 266 25 µg/L 250 106 80-120 Chromium 266 25 µg/L 250 106 80-120 Chead 267 5.0 µg/L 250 106 80-120 Selenium 280 25 µg/L 250 106 80-120 Selenium 280 25 µg/L 250 107 80-120 Silver 283 2.5 µg/L 250 107 80-120 Silver 283 2.5 µg/L 250 106 80-120 Silver 283 2.5 µg/L 250 106 80-120 Thallium 260 1.0 µg/L 250 112 80-120 Vanadium 275 25 µg/L 250 104 80-120 Vanadium 275 25 µg/L 250 104 80-120											
ND   Solver   Solver   Solver											
ND   0.50   µg/L											
Thallium         ND         0.20											
Vanadium         ND         5.0         μg/L           Zine         ND         10         μg/L           Prepared: 04/24/13 Analyzed: 04/25/13           LCS (B071725-BS1)           Prepared: 04/24/13 Analyzed: 04/25/13           Antimony         269         5.0         μg/L         250         107         80-120           Arsenic         272         2.0         μg/L         250         109         80-120           Barium         265         50         μg/L         250         106         80-120           Beryllium         272         2.0         μg/L         250         109         80-120           Cadmium         279         2.5         μg/L         250         112         80-120           Chromium         266         5.0         μg/L         250         106         80-120           Lead         267         5.0         μg/L         250         106         80-120           Nickel         266         25         μg/L         250         112         80-120           Selenium         280         25         μg/L         250         113         80-120 <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr<>											
ND   ND   ND   ND   ND   ND   ND   ND											
Prepared: 04/24/13   Analyzed: 04/25/13   Analyze											
Antimony Arsenic Arsen	2.110	ND	10	μg/ L							
Arsenic 272 2.0 μg/L 250 109 80-120 Barium 265 50 μg/L 250 106 80-120 Beryllium 272 2.0 μg/L 250 109 80-120 Cadmium 279 2.5 μg/L 250 112 80-120 Chromium 266 5.0 μg/L 250 106 80-120 Lead 267 5.0 μg/L 250 106 80-120 Nickel 266 25 μg/L 250 107 80-120 Selenium 280 25 μg/L 250 106 80-120 Silver 283 2.5 μg/L 250 112 80-120 Silver 283 2.5 μg/L 250 113 80-120 Thallium 260 1.0 μg/L 250 113 80-120 Vanadium 275 25 μg/L 250 104 80-120	LCS (B071725-BS1)				•	/24/13 Anal	•				
Barium       265       50       μg/L       250       106       80-120         Beryllium       272       2.0       μg/L       250       109       80-120         Cadmium       279       2.5       μg/L       250       112       80-120         Chromium       266       5.0       μg/L       250       106       80-120         Lead       267       5.0       μg/L       250       106       80-120         Nickel       266       25       μg/L       250       106       80-120         Selenium       280       25       μg/L       250       112       80-120         Silver       283       2.5       μg/L       250       113       80-120         Thallium       260       1.0       μg/L       250       104       80-120         Vanadium       275       25       μg/L       250       110       80-120	•										
Beryllium       272       2.0       μg/L       250       109       80-120         Cadmium       279       2.5       μg/L       250       112       80-120         Chromium       266       5.0       μg/L       250       106       80-120         Lead       267       5.0       μg/L       250       107       80-120         Nickel       266       25       μg/L       250       106       80-120         Selenium       280       25       μg/L       250       112       80-120         Silver       283       2.5       μg/L       250       113       80-120         Thallium       260       1.0       μg/L       250       104       80-120         Vanadium       275       25       μg/L       250       110       80-120											
Cadmium       279       2.5       μg/L       250       112       80-120         Chromium       266       5.0       μg/L       250       106       80-120         Lead       267       5.0       μg/L       250       107       80-120         Nickel       266       25       μg/L       250       106       80-120         Selenium       280       25       μg/L       250       112       80-120         Silver       283       2.5       μg/L       250       113       80-120         Thallium       260       1.0       μg/L       250       104       80-120         Vanadium       275       25       μg/L       250       110       80-120											
Chromium       266       5.0       μg/L       250       106       80-120         Lead       267       5.0       μg/L       250       107       80-120         Nickel       266       25       μg/L       250       106       80-120         Selenium       280       25       μg/L       250       112       80-120         Silver       283       2.5       μg/L       250       113       80-120         Thallium       260       1.0       μg/L       250       104       80-120         Vanadium       275       25       μg/L       250       110       80-120	•										
Lead     267     5.0     μg/L     250     107     80-120       Nickel     266     25     μg/L     250     106     80-120       Selenium     280     25     μg/L     250     112     80-120       Silver     283     2.5     μg/L     250     113     80-120       Thallium     260     1.0     μg/L     250     104     80-120       Vanadium     275     25     μg/L     250     110     80-120											
Nickel 266 25 $\mu g/L$ 250 106 80-120 Selenium 280 25 $\mu g/L$ 250 112 80-120 Silver 283 2.5 $\mu g/L$ 250 113 80-120 Thallium 260 1.0 $\mu g/L$ 250 104 80-120 Vanadium 275 25 $\mu g/L$ 250 110 80-120											
Selenium       280       25 $\mu$ g/L       250       112       80-120         Silver       283       2.5 $\mu$ g/L       250       113       80-120         Thallium       260       1.0 $\mu$ g/L       250       104       80-120         Vanadium       275       25 $\mu$ g/L       250       110       80-120											
Silver     283     2.5     μg/L     250     113     80-120       Thallium     260     1.0     μg/L     250     104     80-120       Vanadium     275     25     μg/L     250     110     80-120											
Thallium 260 1.0 μg/L 250 104 80-120 Vanadium 275 25 μg/L 250 110 80-120											
Vanadium 275 25 μg/L 250 110 80-120	Silver										
2/0	Thallium	260			250		104				
Zinc 276 50 $\mu$ g/L 250 110 80-120	Vanadium										
	Zinc	276	50	μg/L	250		110	80-120			



#### QUALITY CONTROL

#### Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B071725 - SW-846 3005A Dissolved										
LCS Dup (B071725-BSD1)				Prepared: 04	/24/13 Anal					
Antimony	281	5.0	μg/L	250		112	80-120	4.40	20	
Arsenic	279	2.0	$\mu g\!/L$	250		112	80-120	2.81	20	
Barium	276	50	$\mu g\!/L$	250		111	80-120	4.05	20	
Beryllium	280	2.0	$\mu g\!/L$	250		112	80-120	3.06	20	
Cadmium	284	2.5	$\mu g\!/L$	250		114	80-120	1.79	20	
Chromium	276	5.0	$\mu g\!/L$	250		110	80-120	3.72	20	
Lead	280	5.0	$\mu g\!/L$	250		112	80-120	4.82	20	
Vickel	276	25	μg/L	250		110	80-120	3.61	20	
elenium	287	25	μg/L	250		115	80-120	2.52	20	
Silver	293	2.5	μg/L	250		117	80-120	3.35	20	
hallium	273	1.0	μg/L	250		109	80-120	4.85	20	
Vanadium	285	25	μg/L	250		114	80-120	3.75	20	
Zinc	291	50	$\mu g/L$	250		116	80-120	5.25	20	
Ouplicate (B071725-DUP1)	Sou	Prepared: 04	/24/13 Anal	yzed: 04/25/	13					
Antimony	ND	1.0	$\mu g\!/L$		ND			NC	20	
arsenic	2.15	0.40	μg/L		1.80			17.7	20	
Barium	391	50	μg/L		376			4.10	20	
Beryllium	ND	0.40	μg/L		ND			NC	20	
Cadmium	ND	0.50	μg/L		ND			NC	20	
Chromium	ND	1.0	μg/L		ND			NC	20	
ead	ND	1.0	μg/L		ND			NC	20	
lickel	5.32	5.0	μg/L		5.64			5.85	20	
Selenium	ND	5.0	μg/L		ND			NC	20	
ilver	ND	0.50	μg/L		ND			NC	20	
`hallium	ND	0.20	μg/L		ND			NC	20	
Vanadium Vanadium	ND	5.0	μg/L		ND			NC	20	
inc	ND	10	μg/L		ND			NC	20	
Aatrix Spike (B071725-MS1)	Sou	rce: 13D0894-	01	Prepared: 04/24/13 Analyzed: 04/25/13						
Antimony	271	10	μg/L	250	ND		75-125			
arsenic	262	4.0	μg/L	250	1.80		75-125			
Barium	614	100	μg/L	250	376		75-125			
Beryllium	253	4.0	μg/L	250	0.0965		75-125			
Cadmium	260	5.0	μg/L	250	ND		75-125			
Chromium	257	10	μg/L	250	0.779		75-125			
ead	264	10	μg/L	250	ND		75-125			
lickel	256	50	μg/L	250	5.64		75-125			
elenium	256	50	μg/L	250	2.70		75-125			
ilver	257	5.0	μg/L	250	ND		75-125			
`hallium	261	2.0	μg/L	250	ND		75-125			
Vanadium	276	50	μg/L	250	ND ND		75-125			
Zinc	251	100	μg/L	250	2.79		75-125			



# 39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332 **QUALITY CONTROL**

#### Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B071672 - SW-846 7196A										
Blank (B071672-BLK1)				Prepared &	Analyzed: 04	1/24/13				
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B071672-BS1)				Prepared & Analyzed: 04/24/13						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		103	80-120			
LCS Dup (B071672-BSD1)				Prepared &	Analyzed: 04	1/24/13				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		108	80-120	4.81	20	
Matrix Spike (B071672-MS1)	Sour	rce: 13D0894-	04	Prepared &	Analyzed: 04	1/24/13				
Hexavalent Chromium	0.078	0.0040	mg/L	0.100	NE	77.9	75-125			
Matrix Spike Dup (B071672-MSD1)	Sour	rce: 13D0894-	04	Prepared & Analyzed: 04/24/13						
Hexavalent Chromium	0.080	0.0040	mg/L	0.100	NE	79.6	75-125	2.16	20	



#### FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
L-02	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-06	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the high side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
Q-01	Potential false positive result due to a non-petroleum hydrocarbon peak or peaks within the aliphatic/aromatic range.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
RL-07	Elevated reporting limit based on lowest point in calibration.  MA CAM reporting limit not met.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
Z-01	Sample required a dilution due to low internal standard recovery of the lesser diluted digestion, reporting limit is elevated.



#### CERTIFICATIONS

#### Certified Analyses included in this Report

Thallium

Analyte	Certifications
MADEP-EPH-04-1.1 in Water	
C9-C18 Aliphatics	CT,NC,WA,ME,NH-P
C19-C36 Aliphatics	CT,NC,WA,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,WA,ME,NH-P
C11-C22 Aromatics	CT,NC,WA,ME,NH-P
Acenaphthene	CT,NC,WA,ME,NH-P
Acenaphthylene	CT,NC,WA,ME,NH-P
Anthracene	CT,NC,WA,ME,NH-P
Benzo(a)anthracene	CT,NC,WA,ME,NH-P
Benzo(a)pyrene	CT,NC,WA,ME,NH-P
Benzo(b)fluoranthene	CT,NC,WA,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,WA,ME,NH-P
Benzo(k)fluoranthene	CT,NC,WA,ME,NH-P
Chrysene	CT,NC,WA,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,WA,ME,NH-P
Fluoranthene	CT,NC,WA,ME,NH-P
Fluorene	CT,NC,WA,ME
Indeno(1,2,3-cd)pyrene	CT,NC,WA,ME,NH-P
2-Methylnaphthalene	CT,NC,WA,ME
Naphthalene	CT,NC,WA,ME,NH-P
Phenanthrene	CT,NC,WA,ME,NH-P
Pyrene	CT,NC,WA,ME,NH-P
MADEP-VPH-04-1.1 in Water	
Unadjusted C5-C8 Aliphatics	CT,NC,WA,ME,NH-P
C5-C8 Aliphatics	CT,NC,WA,ME,NH-P
Unadjusted C9-C12 Aliphatics	CT,NC,WA,ME,NH-P
C9-C12 Aliphatics	CT,NC,WA,ME,NH-P
C9-C10 Aromatics	CT,NC,WA,ME,NH-P
Benzene	CT,NC,WA,ME,NH-P
Ethylbenzene	CT,NC,WA,ME,NH-P
Methyl tert-Butyl Ether (MTBE)	CT,NC,WA,ME,NH-P
Naphthalene	CT,NC,WA,ME,NH-P
Toluene	CT,NC,WA,ME,NH-P
m+p Xylene	CT,NC,WA,ME,NH-P
o-Xylene	CT,NC,WA,ME,NH-P
SW-846 6020A in Water	
Antimony	CT,NH,NY,NC,ME,VA
Arsenic	CT,NH,NY,NC,ME,VA
Barium	MA,NY,CT,NC,NH,ME,VA
Beryllium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,NC,ME,VA
Chromium	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,NC,ME,VA
Nickel	CT,NH,NY,NC,ME,VA
Selenium	CT,NH,NY,NC,ME,VA
Silver	CT,NC,NH,NY,ME,VA

CT,NH,NY,NC,ME,VA



#### CERTIFICATIONS

#### Certified Analyses included in this Report

Analyte	Certifications
SW-846 6020A in Water	
Vanadium	CT,NH,NY,NC,ME,VA
Zinc	CT,NH,NY,NC,ME,VA
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA
SW-846 7196A in Water	
Hexavalent Chromium	CT,NH,NY,NC,ME,VA
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8260C in Water	
Acetone	CT,NH,NY,ME
tert-Amyl Methyl Ether (TAME)	NH,NY,ME
Benzene	CT,NH,NY,ME
Bromobenzene	ME
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	NY,ME
sec-Butylbenzene	NY,ME
tert-Butylbenzene	NY,ME
tert-Butyl Ethyl Ether (TBEE)	NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	NY,ME
4-Chlorotoluene	NY,ME
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME



#### CERTIFICATIONS

#### Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Water	
cis-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
Diisopropyl Ether (DIPE)	NH,NY,ME
Ethylbenzene	CT,NH,NY,ME
Hexachlorobutadiene	CT,NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	NY,ME
p-Isopropyltoluene (p-Cymene)	CT,NH,NY,ME
Methyl tert-Butyl Ether (MTBE)	CT,NH,NY,ME
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME
Naphthalene	NH,NY,ME
n-Propylbenzene	CT,NH,NY,ME
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
1,2,3-Trichlorobenzene	NH,NY,ME
1,2,4-Trichlorobenzene	CT,NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,4-Trimethylbenzene	NY,ME
1,3,5-Trimethylbenzene	NY,ME
Vinyl Chloride	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME



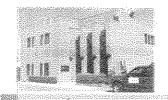
 $The \ CON\text{-}TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2013
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2013
NC	North Carolina Div. of Water Quality	652	12/31/2013
NJ	New Jersey DEP	MA007 NELAP	06/30/2013
FL	Florida Department of Health	E871027 NELAP	06/30/2013
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2013
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2013
VA	Commonwealth of Virginia	460217	12/14/2013
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2012

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39 Spruce St.
East Congmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com





Sample Receipt Checklist

CLIENT NAME: 1/470/1	44.4 Luftherman	RECEIVED BY:	W/ DA	TE: 4/ 23/13
1) Was the chain(s) of custody re	elinauished and sia	ned?	, No N	o CoC Included
2) Does the chain agree with the			s (No)	and the second of the second o
If not, explain:	and the state of t	,		
3) Are all the samples in good co	ondition?	. Ae	s) No	
If not, explain:		· Cuminhate		
4) How were the samples receive	ed:		, ,	
On Ice Direct from Sa	ampling $\square$	Ambient In C	Gooler(s)	
Were the samples received in Ter	mperature Compliar	nce of (2-6°C)?	s No N	/A
•	N S		and the second	· / /
Temperature °C by Temp blank	V200-00-00-00-00-00-00-00-00-00-00-00-00-	Temperature °C by Ter	np gun	
5) Are there Dissolved samples t	or the lab to filter?	Ye	s No	
Who was notified	Date	Time	Carrier	
6) Are there any RUSH or SHORT	THOLDING TIME/SE	imples? / Ne	s) No	
Who was notified & AUR	Date 4/7.	2/13Time 11/22/	and .	
			to subcontra	ct samples? Yes No
7) Location where samples are store	n.d.	and the second s		,
// Location where samples are store	*u:     6	<b>4</b> 11		ot already approved
(a)		Client Sign	alure:	
8) Do all samples have the prope	er Acid pH: <u>Yes</u>	No N/A		<del>умиченную</del>
<ol><li>Do all samples have the properties.</li></ol>	er Base pH: Yes	No M/A )		·
10) Was the PC notified of any di	screpancies with th	e CoC <del>Vétbe-sa</del> mples:	Yes No	N/A
		ceived at Con-		
	# of containers			# of containers
1 Liter Amber	# Of Containers	8 oz ambe	r/claar iar	# Of Containers
500 mL Amber	<i>(</i>	4 oz ambe		7
250 mL Amber (8oz amber)		2 oz ambe		***************************************
1 Liter Plastic		Air Cas		
500 mL Plastic	acceptance.	Hg/Hopca		
250 mL plastic	8	Plastic Ba	g / Ziploc	
40 mL Vial - type listed below	30	PM 2.5 /	PM 10	
Colisure / bacteria bottle		PUF Ca	rtridge	
Dissolved Oxygen bottle		SOC	Kit	
Encore		TO-17	Tubes	
Flashpoint bottle		Non-ConTes	t Container	
Perchlorate Kit		Other gl	ass jar	
Other		Oth Oth		
Laboratory Comments: W. Cul	sed to The	p Blanks not	on coc	- 60 y/2013)
		······································		ne and Date Frozen:
40 mL vials: # HCl	<i>{                                    </i>	hanol		io and pate ( lucell.
Doc# 277 # Bisulfate	# DI V	Vater	www.compo	
Rev. 3 May 2012 # Thiosulfate	Unoro	served	Terrore Terrore	

	MADEP MCP Analytical Method Report Certification Form											
Labo	ratory Name:	: Con-Test Ana	lytical Laboratory		Project #: 13D	0894						
Proje	ect Location:	175 Intervale	St., Quincy, MA		RTN:							
This F	orm provide	s certifications for t	he following data se	t: [list Laboratory Sar	nple ID Number(s)]							
130	00894-01 thru	ı 13D0894-04										
Matri	ces:	Water										
CA	AM Protoco	l (check all that l	pelow)									
	VOC II A (X)	7470/7471 Hg CAM IIIB (X)	MassDEP VPH CAM IV A (X)	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B (X)	MassD CAM IX	EP APH					
	SVOC IIB()	7010 Metals CAM III C()	MassDEP EPH CAM IV A (X)	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 CAM IX	I					
	Metals III A ()	6860 Perchlorate CAM VIII B ( )										
	Affirmative response to Questions A throughF is required for "Presumptive Certainty" status											
Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?												
В												
С	Were all requir	red corrective actions a	ind analytical response a	ctions specified in the sel	ected CAM	☑ Yes	□No¹					
D	Does the labor	ratory report comply wi	th all the reporting require	ements specified in CAM sition and Reporting of Al		☑ Yes	□No¹					
Εa		•	Vas each method conduction	cted without significant significant modifications).		☑ Yes	□No¹					
Εb				reported for each method	?	□Yes	□No¹					
F				ard non-conformances ide to Qestions A through E		☑ Yes	□No¹					
				ed for "Presumptive C								
G	protocol(s)?		, •	specified in the selected C		□Yes	☑No¹					
				status may not neces R 40. 1056 (2)(k) and V	ssarily meet the data us VSC-07-350.	sability						
н	Were all QC p	erfomance standards s	pecified in the CAM prote	ocol(s) achieved?		□ <sub>Yes</sub>	☑ <sub>No¹</sub>					
I	Were results re	eported for the comple	te analyte list specified in	the selected CAM protoc	col(s)?	□Yes	☑No¹					
<b>1</b> <sub>All</sub>	Negative respo	onses must be addre	ssed in an attached E	nvironmental Laborator	y case narrative.							
thos	se responsible	-	nformation, the mater		oon my personal inqui nalytical report is, to t	-						
Sigi	nature:	Dae	De J	Position:	Laboratory Manager							
Prin	Printed Name: Daren J. Damboragian Date: 05/02/13											

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THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-46783-1

Client Project/Site: Quincy Inervale

Revision: 2

For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

h Masen

Authorized for release by: 2/3/2014 12:06:04 PM

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

·····LINKS ······

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

These commonly used abbreviations may or may not be present in this report.

#### **GC VOA**

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **GC Semi VOA**

Qualifier	Qualifier Description								
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.								
Χ	Surrogate is outside control limits								
В	Compound was found in the blank and sample.								
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.								
Metals									

Qualifier	Qualifier Description
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS/MSD Recovery and/or RPD exceeds the control limits

#### **Glossary**

Abbreviation

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Buffalo

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2/3/2014

#### **Case Narrative**

Client: Woodard & Curran Inc TestAmerica Job ID: 480-46783-1
Project/Site: Quincy Inervale

Job ID: 480-46783-1

Laboratory: TestAmerica Buffalo

#### Narrative

Revised report 2: Corrected MCP certification form for this report. this report replaces final report from 10/14/13.

Revised report: All soil units that were reporting as ug/Kg have been changed to mg/Kg per client request. This report replaces final report from 9/23/13.

#### Receipt

The samples were received on 9/28/2013 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.3° C and 2.8° C.

#### Except:

Both DI Water vials for the following sample were received broken: WCSB-1 (2.5-3) (480-46783-20).

The following samples were preserved via freezing on 9/28/2013 at 10:10 by the lab. The client froze all samples collected on 9/25/13 on 9/26/13 at 1530 and all samples collected on 9/26/16 at 9/26/13 at 1630: TB-09252013 (480-46783-15), WCSB-1 (2.5-3) (480-46783-20), WCSB-1 (7-8) (480-46783-21), WCSB-11 (1-2) (480-46783-1), WCSB-2 (14-15) (480-46783-18), WCSB-3 (5-6) (480-46783-22), WCSB-4 (2.5-3) (480-46783-16), WCSB-4 (6-7) (480-46783-17), WCSB-5 (0.5-1.5) (480-46783-12), WCSB-5 (5-6) (480-46783-13), WCSB-6 (4-5) (480-46783-10), WCSB-6 (8-9) (480-46783-11), WCSB-7 (4-5) (480-46783-4), WCSB-7 (7.5-8) (480-46783-5), WCSB-8 (2-2.5) (480-46783-6), WCSB-8 (7-8) (480-46783-8), WCSB-9 (1-2) (480-46783-24). This is within the 48 hour timeframe required by the method.

#### GC/MS VOA

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batchs 142033 and 142036 recovered outside control limits for the following analytes: Tetrachloroethene and/or Chloromethane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The laboratory control sample duplicate (LCSD) for batch 142288 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample.

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batchs 142492 and 142727 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample.

Method 8260C: The laboratory control sample (LCS) for batch 142727 exceeded control limits for the following analyte: Dichlorodifluoromethane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The laboratory control sample duplicate (LCSD) for batch 142564 exceeded control limits for the following analytes: Dichlorodifluoromethane and 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: WCSB-5 (0.5-1.5) (480-46783-12), WCSB-5 (5-6) (480-46783-13), WCSB-5 (0.5-1.5) (480-46783-12), WCSB-5 (5-6) (480-46783-13), WCSB-8 (2-2.5) (480-46783-6). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was analyzed medium level due to the nature of the sample matrix: WCSB-4 (2.5-3) (480-46783-16). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample(s) was analyzed medium level to bring the concentration of target analytes within the calibration range: WCSB-8 (2-2.5) (480-46783-6). Elevated reporting limits (RLs) are provided.

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#### Job ID: 480-46783-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

Method 8260C: The low level soil vials were cracked during freezing. The medium level vial was not damaged and was analyzed. Elevated reporting limits are provided for the following sample: WCSB-2 (14-15) (480-46783-18).

With the exception of diluted samples and adjustments made for % solids or insufficient sample mass, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-Dibromo-3-Chloropropane, Naphthalene, & Tetrahydrofuran.

No other analytical or quality issues were noted.

#### GC VOA

Method MAVPH: The following sample was diluted to bring the concentration of target analytes within the calibration range: WCSB-8 (2-2.5) (480-46783-6), WCSB-5 (5-6) (480-46783-13), WCSB-4 (2.5-3) (480-46783-16). Elevated reporting limits (RLs) are provided.

At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No other analytical or quality issues were noted.

#### GC Semi VOA

Method 8082: Decachlorobiphenyl surrogate recovery for the following sample was outside the upper control limit: WCSB-1 (7-8) (480-46783-21) on the confirmation column. This sample did not contain any target analytes above the reporting limit (RL); therefore, re-extraction and/or re-analysis was not performed.

Method 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WCSB-1 (7-8) (480-46783-21), WCSB-3 (7-8) (480-46783-23), WCSB-4 (2.5-3) (480-46783-16), WCSB-4 (6-7) (480-46783-17), WCSB-8 (7-8) (480-46783-8), WCSB-9 (2.5-3) (480-46783-25), WCSB-909 (2.5-3) (480-46783-26), WCSB-7 (2.5-3) (480-46783-3), WCSB-8 (2.5-3) (480-46783-7), WCSB-6 (2.5-3) (480-46783-9). Lot # S65830

Method 8082: Surrogate recovery for the following sample was outside control limits on the confirmation column: WCSB-7 (2.5-3) (480-46783-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082: The tetrachloromxylene surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column: (MB 240-103651/23-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control. Data is reported.

Method 8082: The decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary: (LCS 240-103651/24-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control. Data is reported.

Method 8082: The closing continuing calibration verification (CCV) on the confirmation column for analytical batch 104246 recovered outside control limits. These samples were analyzed in an identical bracket with the closing CCV (confirmation column) exceeding criteria demonstrating probably matrix effect for the associated samples The data has been reported.

Method 8082: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: WCSB-11 (2.5-3) (480-46783-2). The sample has been quantified and reported as Aroclors 1254 and 1260. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method MA-EPH: Surrogate recovery 1-Chlorooctadecane for the following samples is outside control limits due to matrix interferences: WCSB-5 (0.5-1.5) (480-46783-12).

Method MA-EPH: The following sample was diluted due to abundance of target analytes OR abundance of non-target analytes: WCSB-11 (1-2) (480-46783-1). Therefore, surrogate recoveries are not representative, and elevated reporting limits (RLs) are provided.

TestAmerica Buffalo 2/3/2014

#### **Case Narrative**

TestAmerica Job ID: 480-46783-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Job ID: 480-46783-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method MA-EPH: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

Per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol; however they do achieve method 1 S1 standards.

No other analytical or quality issues were noted.

#### Metals

Method 6010: The CRI (CRI 480-142236/7) exhibited results outside the project established contol limits for total cadmium and selenium. However, the results were within TestAmerica's standard quality control limits, therefore no corrective action was necessary.

Method 6010: The ICSA (ICSA 480-142236/8) exhibited results outside the project established control limits for total antimony. However, the results were within TestAmerica's standard quality control limits, therefore no corrective action was necessary.

Method 6010: The Method Blank for batch 480-141839 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples WCSB-1 (2.5-3) (480-46783-20), WCSB-10 (2.5-3) (480-46783-27), WCSB-11 (2.5-3) (480-46783-2), WCSB-4 (2.5-3) (480-46783-16), WCSB-5 (2.5-3) (480-46783-14), WCSB-6 (2.5-3) (480-46783-9), WCSB-7 (2.5-3) (480-46783-3), WCSB-8 (2.5-3) (480-46783-7), WCSB-9 (2.5-3) (480-46783-25) was not performed.

Method 6010: The Serial Dilution (480-46783-20 SD) in batch 480-141839, exhibited results outside the quality control limits for total barium, chromium, vanadium, and zinc. However, the Post Digestion Spike was compliant so no corrective action was necessary.

Method 6010: The Matrix Spike/ Matrix Spike Duplicate (WCSB-1 (2.5-3) MS (480-46783-20 MS), WCSB-1 (2.5-3) MSD (480-46783-20 MSD)) recoveries for total zinc in batch 480-141839 were outside control limits. The Matrix Spike recovery for total antimony and the Matrix Spike Duplicate recovery for total lead were also outside control limits. Matrix interference is suspected. The associated Laboratory Control Sample (LCS) recovery met acceptance criteria, therefore no corrective action was necessary.

Method 6010: The following sample was diluted to bring the concentration of target analyte total zinc within the linear range of the instrument: WCSB-7 (2.5-3) (480-46783-3). Elevated reporting limits (RLs) are provided.

Method 7471A: The following samples were diluted to bring the concentration of the target analyte total mercury within the calibration range: WCSB-11 (2.5-3) (480-46783-2), WCSB-7 (2.5-3) (480-46783-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **General Chemistry**

No analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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	MassDEP Analytical Protocol Certification Form										
Laboratory Name: <b>TestAmerica Buffalo</b>							Project #	:	480-4678	3-1	
Project Location: Quincy							RTN	:			
This f	This form provides certifications for the data set for the following Laboratory Sample ID Number(s):										
480-4	80-46783-1[1-27]										
Matric	ces:		Groundwater/			<u>X</u>	Soil/Sediment	Drinking \	<i>N</i> ater ∐Air	Other:	:
8260	\ <u>\</u>				Mass DEP \	-	c all that apply b			Mass DEF	D A DLI
8260 CAM		X	7470/7471 Hg CAM III B	_	CAM IV A	/PH   X	8081 Pesticides CAM V B	7196 Hex	_	CAM IX A	
	SVOC		7010 Metals		Mass DEP E		8151 Herbicides	8330 Exp		TO-15 VC	
CAM	II B		CAM III C	Χ	CAM IV B	X	CAM V C	CAM VIII	Α 🗆	CAM IX B	
6010 CAM	Metals III A		6020 Metals CAM III D		8082 PCB CAM V A	X	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A	6860 Per			
	Affirm	ative	Responses to	Que	stions A thr	ough F	are required for	"Presumpt	ive Certainty" st	atus	
A	proper	ly pres	•				with those describe		•	Yes	X No
В			alytical method ollowed?	(s) a	nd all associa	ated Q(	C requirements spe	cified in the	e selected CAM	X Yes	☐ No
С						-	esponse actions sp ce standard non-co			X Yes	☐ No
D		ty Assi					ing requirements spor the Acquisition a			X Yes	☐ No
E	modifi	cation	s)? (Refer to t	ne ind	dividual meth	od(s) fo	thod conducted wit or a list of significar analyte list reporte	nt modificat	ions).	X Yes	☐ No ☐ No
F	evalua	ted in	a laboratory na	arrativ	e (including	all "No	nce standard non-c responses to Que	stions A th	rough E)?	X Yes	□ No
	Re	spon	ses to Question	ns G	6, H and I be	low are	e required for "Pre	esumptive	Certainty" status	S	
G	protoc	ol(s)?				•	ng limits specified i			Yes	X No <sup>1</sup>
	<u>Data</u>	User					ertainty" status may cribed in 310 CMR 4				and
Н	Were	all QC	performance	stand	ards specifie	d in the	e CAM protocol(s) a	achieved?		Yes	X No <sup>1</sup>
I	Were	results	reported for th	ne co	mplete analy	te list s	pecified in the sele	cted CAM p	protocol(s) ?	Yes	X No <sup>1</sup>
1 All neg	gative resp	onses m	ust be addressed in a	ın attac	hed laboratory nar	rative.					
obtair		inforn	nation, the mat	-	-	_	erjury that, based u llytical report is, to			-	nsible for
Signa	ture:		ha	m	asen		Position	:	Project Ma	nager	
Printed Name: Becky Mason Date: 2/3/14 11:58  This form has been electronically signed and approved											

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-11 (1-2)

Lab Sample ID: 480-46783-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	0.00696	J	0.0351	0.00230	mg/Kg	1	₩	8260C	Total/NA
Acetone	0.0138	J	0.351	0.00590	mg/Kg	1	₩	8260C	Total/NA
Benzene	0.00210	J	0.00351	0.000344	mg/Kg	1	₽	8260C	Total/NA
Ethylbenzene	0.00838		0.00351	0.000484	mg/Kg	1	₽	8260C	Total/NA
m-Xylene & p-Xylene	0.0169		0.00701	0.00118	mg/Kg	1	₽	8260C	Total/NA
o-Xylene	0.00689		0.00351	0.000916	mg/Kg	1	₽	8260C	Total/NA
Styrene	0.00364		0.00351	0.000351	mg/Kg	1	₽	8260C	Total/NA
Tetrachloroethene	0.257		0.00351	0.000941	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.00399		0.00351	0.000530	mg/Kg	1	₽	8260C	Total/NA
Trichloroethene	0.00658		0.00351	0.00154	mg/Kg	1	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.665		0.256	0.0102	mg/Kg	1	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.676	В	0.255	0.0102	mg/Kg	1	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.273		0.255	0.0102	mg/Kg	1	₩	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.538	В	0.255	0.0102	mg/Kg	1	₽	MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	1660		49.1	19.6	mg/Kg	10	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	242		49.1	19.6	mg/Kg	10	₽	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	1120		51.2	51.2	mg/Kg		#	MA-EPH	Total/NA

Client Sample ID: WCSB-11 (2.5-3)

Lab Sample ID: 480-46783-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.630		0.347	0.179	mg/Kg	10	₩	8082	Total/NA
Silver	0.442	J	0.500	0.200	mg/Kg	1	₽	6010	Total/NA
Arsenic	4.99		1.00	0.400	mg/Kg	1	₩	6010	Total/NA
Barium	87.7		0.500	0.110	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.662		0.200	0.0280	mg/Kg	1	₩	6010	Total/NA
Cadmium	26.3	٨	0.200	0.0300	mg/Kg	1	₩	6010	Total/NA
Chromium	24.5		0.500	0.200	mg/Kg	1	₽	6010	Total/NA
Nickel	34.1		1.00	0.230	mg/Kg	1	₩	6010	Total/NA
Vanadium	20.2		0.500	0.110	mg/Kg	1	₩	6010	Total/NA
Zinc	541	В	2.50	0.153	mg/Kg	1	₽	6010	Total/NA
Lead	460		0.500	0.240	mg/Kg	1	₽	6010	Total/NA
Selenium	0.761	۸	0.500	0.400	mg/Kg	1	₽	6010	Total/NA
Antimony	1.50	^	0.500	0.400	mg/Kg	1	₽	6010	Total/NA
Mercury	1.24		0.514	0.0417	mg/Kg	5	₩	7471A	Total/NA

Client Sample ID: WCSB-7 (2.5-3)

Lab Sample ID: 480-46783-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.0381		0.0368	0.0189	mg/Kg	1	₩	8082	Total/NA
Silver	5.28		0.501	0.201	mg/Kg	1	₽	6010	Total/NA
Arsenic	8.00		1.00	0.401	mg/Kg	1	₽	6010	Total/NA
Barium	230		0.501	0.110	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.442		0.201	0.0281	mg/Kg	1	₽	6010	Total/NA
Cadmium	6.93	^	0.201	0.0301	mg/Kg	1	₽	6010	Total/NA
Chromium	518		0.501	0.201	mg/Kg	1	₽	6010	Total/NA
Nickel	62.6		1.00	0.231	mg/Kg	1	₽	6010	Total/NA
Thallium	0.831	J	1.00	0.301	mg/Kg	1	₽	6010	Total/NA
Vanadium	213		0.501	0.110	mg/Kg	1	₩	6010	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-7 (2.5-3) (Continued)

Lab Sample ID: 480-46783-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	5720	В	12.5	0.767	mg/Kg	5	₩	6010	Total/NA
Lead	895		0.501	0.241	mg/Kg	1	₽	6010	Total/NA
Selenium	4.06	^	0.501	0.401	mg/Kg	1	₽	6010	Total/NA
Antimony	3.49	٨	0.501	0.401	mg/Kg	1	₽	6010	Total/NA
Mercury	2.94		1.06	0.0860	mg/Kg	10	₩	7471A	Total/NA

Client Sample ID: WCSB-7 (4-5)

l ah Samplo	ID: 480-46783-4
Lab Sallible	ID. 400-40/03-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.00914	J	0.256	0.00431	mg/Kg	1	₩	8260C	Total/NA
Tetrachloroethene	0.0102		0.00256	0.000687	mg/Kg	1	₩	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.0523	J	0.283	0.0113	mg/Kg	1	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.0463	JB	0.213	0.00852	mg/Kg	1	₩	MAVPH	Total/NA
C9-C10 Aromatics	0.0362	J	0.213	0.00852	mg/Kg	1	₩	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.0380	J	0.213	0.00852	mg/Kg	1	₩	MAVPH	Total/NA
C19-C36 Aliphatics	4.91	J	5.34	2.14	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	2.42	JB	5.34	2.14	mg/Kg	1	₩	MA-EPH	Total/NA

Client Sample ID: WCSB-7 (7.5-8)

#### Lab Sample ID: 480-46783-5

	Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
l	Acetone	0.0750	J	0.418	0.00704	mg/Kg	1	₩	8260C	Total/NA
١	Carbon disulfide	0.00834		0.00418	0.00418	mg/Kg	1	₽	8260C	Total/NA

Client Sample ID: WCSB-8 (2-2.5)

#### Lab Sample ID: 480-46783-6

								<u> </u>	
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.0519	J	0.0777	0.0298	mg/Kg		₩	8260C	Total/NA
1,3,5-Trimethylbenzene	0.0197	J	0.0777	0.0100	mg/Kg	1	₽	8260C	Total/NA
m-Xylene & p-Xylene	0.0275	J	0.155	0.0261	mg/Kg	1	₽	8260C	Total/NA
o-Xylene	0.0216	J	0.0777	0.0203	mg/Kg	1	÷	8260C	Total/NA
Styrene	0.0149	J	0.0777	0.00777	mg/Kg	1	₽	8260C	Total/NA
Tetrachloroethene	0.198		0.0777	0.0208	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.0152	J	0.0777	0.0117	mg/Kg	1	÷	8260C	Total/NA
Naphthalene - DL	11.2		6.21	0.167	mg/Kg	8	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	1.31	J	14.5	0.579	mg/Kg	50	₽	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	1.31	JВ	14.9	0.596	mg/Kg	50	₽	MAVPH	Total/NA
C9-C10 Aromatics	1.53	J	14.9	0.596	mg/Kg	50	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	1.11	J	14.9	0.596	mg/Kg	50	₽	MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	422		5.63	2.25	mg/Kg	1	₩.	MA-EPH	Total/NA
C19-C36 Aliphatics	501		5.63	2.25	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	5.01	JB	5.63	2.25	mg/Kg	1	₽	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	183		5.79	5.79	mg/Kg		₩	MA-EPH	Total/NA

Client Sample ID: WCSB-8 (2.5-3)

#### Lab Sample ID: 480-46783-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.126		0.0454	0.0234	mg/Kg		₩	8082	Total/NA
Arsenic	11.1		1.28	0.513	mg/Kg	1	₽	6010	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-46783-7

<b>Client Sample ID</b>	: WCSB-8 (2	2.5-3) (	Continued)
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	41.8		0.642	0.141	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.499		0.257	0.0359	mg/Kg	1	\$	6010	Total/NA
Cadmium	2.73	^	0.257	0.0385	mg/Kg	1	₽	6010	Total/NA
Chromium	32.6		0.642	0.257	mg/Kg	1	₽	6010	Total/NA
Nickel	34.4		1.28	0.295	mg/Kg	1	₩	6010	Total/NA
Vanadium	14.2		0.642	0.141	mg/Kg	1	₽	6010	Total/NA
Zinc	157	В	3.21	0.196	mg/Kg	1	₩	6010	Total/NA
Lead	62.1		0.642	0.308	mg/Kg	1	₩	6010	Total/NA
Selenium	1.25	^	0.642	0.513	mg/Kg	1	₽	6010	Total/NA
Antimony	0.613	J^	0.642	0.513	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0568	J	0.137	0.0111	mg/Kg	1	₩.	7471A	Total/NA

### Client Sample ID: WCSB-8 (7-8)

Client Sample ID: WCSB-8 (7	La	ab	Sample ID	: 480-46783-8					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.0403		0.0307	0.00224	mg/Kg	1	₩	8260C	Total/NA
Acetone	0.167	J	0.307	0.00516	mg/Kg	1	₽	8260C	Total/NA
Benzene	0.00102	J	0.00307	0.000300	mg/Kg	1	₽	8260C	Total/NA
Carbon disulfide	0.0241		0.00307	0.00307	mg/Kg	1	₩	8260C	Total/NA
Naphthalene	0.00497	J	0.0307	0.000822	mg/Kg	1	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.451		0.363	0.0145	mg/Kg	1	₽	MA VPH	Total/NA
C9-C12 Aliphatics (adjusted)	0.733		0.363	0.0145	mg/Kg	1	\$	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.347	В	0.347	0.0139	mg/Kg	1	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.291	J	0.347	0.0139	mg/Kg	1	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.813	В	0.347	0.0139	mg/Kg	1	₩	MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	21.3		6.76	2.70	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	53.8		6.76	2.70	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	4.29	JB	6.76	2.70	mg/Kg	1	₩.	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	18.2		7.26	7.26	mg/Kg	1	₩	MA-EPH	Total/NA

#### Client Sample ID: WCSB-6 (2.5-3)

Client Sample ID: WCSB-6 (2.5-3)							ıb	Sample II	D: 480-46783-9
– Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.121		0.0342	0.0176	mg/Kg	1	₩	8082	Total/NA
Arsenic	2.81		0.987	0.395	mg/Kg	1	₽	6010	Total/NA
Barium	39.5		0.494	0.109	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.424		0.197	0.0276	mg/Kg	1	₩	6010	Total/NA
Cadmium	1.75	^	0.197	0.0296	mg/Kg	1	₩	6010	Total/NA
Chromium	18.4		0.494	0.197	mg/Kg	1	₽	6010	Total/NA
Nickel	28.1		0.987	0.227	mg/Kg	1	ф	6010	Total/NA
Vanadium	13.0		0.494	0.109	mg/Kg	1	₽	6010	Total/NA
Zinc	645	В	2.47	0.151	mg/Kg	1	₽	6010	Total/NA
Lead	145		0.494	0.237	mg/Kg	1	₽	6010	Total/NA
Antimony	0.413	J ^	0.494	0.395	mg/Kg	1	₽	6010	Total/NA
Mercury	0.123		0.0996	0.00807	mg/Kg	1	₩	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: WCSB-6 (4-5)

Lab Sample ID: 480-46783-10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-46783-10

Client Sample ID: WCSB-6 (4-5) (Continued)	Lab Sample ID: 480-46783-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0219	J	0.283	0.00477	mg/Kg	1	₽	8260C	Total/NA

#### Lab Sample ID: 480-46783-11 Client Sample ID: WCSB-6 (8-9)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.0204	J	0.0262	0.00192	mg/Kg	1	₩	8260C	Total/NA
Acetone	0.0704	J	0.262	0.00442	mg/Kg	1	₩	8260C	Total/NA
Benzene	0.00268		0.00262	0.000257	mg/Kg	1	₽	8260C	Total/NA
Carbon disulfide	0.00563		0.00262	0.00262	mg/Kg	1	₽	8260C	Total/NA
Ethylbenzene	0.00115	J	0.00262	0.000362	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.00326		0.00262	0.000397	mg/Kg	1	₩	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	2.27		0.317	0.0127	mg/Kg	1	₽	MA VPH	Total/NA
C9-C12 Aliphatics (adjusted)	0.0351	J	0.317	0.0127	mg/Kg	1	₽	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	1.94	В	0.261	0.0104	mg/Kg	1	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.251	J	0.261	0.0104	mg/Kg	1	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.317	В	0.261	0.0104	mg/Kg	1	₽	MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	3.18	J	6.13	2.45	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	5.49	J	6.13	2.45	mg/Kg	1	₩.	MA-EPH	Total/NA

### Client Sample ID: WCSB-5 (0.5-1.5)

### Lab Sample ID: 480-46783-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trichlorobenzene	3.23		1.28	0.156	mg/Kg	10	₩	8260C	Total/NA
1,2-Dichlorobenzene	2.06		1.28	0.200	mg/Kg	10	₽	8260C	Total/NA
1,3-Dichlorobenzene	22.7		1.28	0.132	mg/Kg	10	₽	8260C	Total/NA
1,4-Dichlorobenzene	27.5		1.28	0.358	mg/Kg	10	₽	8260C	Total/NA
Benzene	0.430	J	1.28	0.125	mg/Kg	10	₩	8260C	Total/NA
Naphthalene	5.90	J	12.8	0.343	mg/Kg	10	₽	8260C	Total/NA
Chlorobenzene - DL	95.0		6.40	1.69	mg/Kg	50	₩	8260C	Total/NA
PCB-1260	1040		362	186	mg/Kg	10000	₽	8082	Total/NA
C11-C22 Aromatics (unadjusted)	2070		5.14	2.05	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	9730		5.14	2.05	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	6890	В	5.14	2.05	mg/Kg	1	₩	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	1870		5.48	5.48	mg/Kg	1	₩	MA-EPH	Total/NA

#### Client Sample ID: WCSB-5 (5-6)

#### Lab Sample ID: 480-46783-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trichlorobenzene	2.45		1.37	0.167	mg/Kg	10	₩	8260C	Total/NA
1,2-Dichlorobenzene	2.10		1.37	0.214	mg/Kg	10	₽	8260C	Total/NA
1,3-Dichlorobenzene	15.8		1.37	0.141	mg/Kg	10	₽	8260C	Total/NA
1,4-Dichlorobenzene	24.2		1.37	0.384	mg/Kg	10	₩	8260C	Total/NA
Benzene	0.526	J	1.37	0.134	mg/Kg	10	₽	8260C	Total/NA
Naphthalene	1.16	J	13.7	0.367	mg/Kg	10	₽	8260C	Total/NA
Chlorobenzene - DL	105		5.48	1.45	mg/Kg	40	₩	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	1.48	J	33.9	1.36	mg/Kg	100	₽	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	1.48	J	28.7	1.15	mg/Kg	100	₽	MAVPH	Total/NA
C9-C10 Aromatics	33.1		28.7	1.15	mg/Kg	100	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	53.2		28.7	1.15	ma/Ka	100	₽	MAVPH	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-5 (5-6) (Continued)

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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	1250		6.50	2.60	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	3230		6.50	2.60	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	2390	В	6.50	2.60	mg/Kg	1	₩	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	1150		6.78	6.78	ma/Ka		₩	MA-EPH	Total/NA

Client Sample ID: WCSB-5 (2.5-3)

## Lab Sample ID: 480-46783-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	37.5		19.8	10.2	mg/Kg	500	₩	8082	Total/NA
Arsenic	5.39		1.14	0.455	mg/Kg	1	₽	6010	Total/NA
Barium	139		0.569	0.125	mg/Kg	1	₽	6010	Total/NA
Beryllium	1.43		0.227	0.0318	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.603	^	0.227	0.0341	mg/Kg	1	₽	6010	Total/NA
Chromium	12.0		0.569	0.227	mg/Kg	1	₽	6010	Total/NA
Nickel	7.12		1.14	0.262	mg/Kg	1	₽	6010	Total/NA
Vanadium	12.6		0.569	0.125	mg/Kg	1	₽	6010	Total/NA
Zinc	181	В	2.84	0.174	mg/Kg	1	₽	6010	Total/NA
Lead	295		0.569	0.273	mg/Kg	1	₽	6010	Total/NA
Selenium	0.847	^	0.569	0.455	mg/Kg	1	₩	6010	Total/NA
Mercury	0.550		0.110	0.00887	mg/Kg	1	₽	7471A	Total/NA

Client Sample ID: TB-09252013

#### Lab Sample ID: 480-46783-15

No Detections.

Client Sample ID: WCSB-4 (2.5-3)

#### Lab Sample ID: 480-46783-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3-Trichlorobenzene	0.0310	J	0.117	0.0249	mg/Kg	1	₩	8260C	Total/NA
1,2,4-Trichlorobenzene	0.0497	J	0.117	0.0142	mg/Kg	1	₽	8260C	Total/NA
1,2,4-Trimethylbenzene	0.0553	J	0.117	0.0450	mg/Kg	1	₽	8260C	Total/NA
Benzene	0.0468	J	0.117	0.0115	mg/Kg	1	₽	8260C	Total/NA
Ethylbenzene	0.124		0.117	0.0162	mg/Kg	1	₽	8260C	Total/NA
m-Xylene & p-Xylene	0.110	J	0.234	0.0394	mg/Kg	1	₽	8260C	Total/NA
Naphthalene	0.0757	J	1.17	0.0314	mg/Kg	1	₽	8260C	Total/NA
n-Butylbenzene	0.124		0.117	0.0204	mg/Kg	1	₩	8260C	Total/NA
N-Propylbenzene	0.136		0.117	0.0187	mg/Kg	1	₽	8260C	Total/NA
o-Xylene	0.0409	J	0.117	0.0306	mg/Kg	1	₩	8260C	Total/NA
Tetrahydrofuran	6.67		2.34	0.216	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.0474	J	0.117	0.0177	mg/Kg	1	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	79.6		3.21	0.128	mg/Kg	10	\$	MA VPH	Total/NA
C9-C12 Aliphatics (adjusted)	50.7		3.21	0.128	mg/Kg	10	₽	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	82.0	В	3.09	0.124	mg/Kg	10	₽	MAVPH	Total/NA
C9-C10 Aromatics	13.6		3.09	0.124	mg/Kg	10	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	66.3	В	3.09	0.124	mg/Kg	10	₽	MAVPH	Total/NA
PCB-1260	0.122		0.0416	0.0214	mg/Kg	1	₩	8082	Total/NA
C11-C22 Aromatics (unadjusted)	5.57	J	5.90	2.36	mg/Kg	1	₩.	MA-EPH	Total/NA
C19-C36 Aliphatics	23.6		5.90	2.36	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	2.50	JB	5.90	2.36	mg/Kg	1	₽	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-46783-16

Lab Sample ID: 480-46783-17

Lab Sample ID: 480-46783-18

Client Sample	ID: WCSB-4 (	(2.5-3)	(Continued)
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	74.1		1.19	0.477	mg/Kg	1	₩	6010	Total/NA
Barium	24.9		0.596	0.131	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.198	J	0.238	0.0334	mg/Kg	1	₽	6010	Total/NA
Cadmium	1.57	^	0.238	0.0358	mg/Kg	1	₽	6010	Total/NA
Chromium	98.0		0.596	0.238	mg/Kg	1	₩	6010	Total/NA
Nickel	129		1.19	0.274	mg/Kg	1	₽	6010	Total/NA
Vanadium	215		0.596	0.131	mg/Kg	1	₩	6010	Total/NA
Zinc	369	В	2.98	0.182	mg/Kg	1	₩	6010	Total/NA
Lead	274		0.596	0.286	mg/Kg	1	₩	6010	Total/NA
Selenium	3.66	^	0.596	0.477	mg/Kg	1	₩	6010	Total/NA
Antimony	3.49	^	0.596	0.477	mg/Kg	1	₩	6010	Total/NA
Mercury	0.0760	J	0.121	0.00982	mg/Kg	1	₩	7471A	Total/NA

### Client Sample ID: WCSB-4 (6-7)

	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0966	J	0.281	0.00474	mg/Kg		₩	8260C	Total/NA
Chlorobenzene	0.00449		0.00281	0.000742	mg/Kg	1	₩	8260C	Total/NA
cis-1,2-Dichloroethene	0.000817	J	0.00281	0.000720	mg/Kg	1	₽	8260C	Total/NA
PCB-1260	0.0282	J	0.0481	0.0248	mg/Kg	1	₽	8082	Total/NA
C11-C22 Aromatics (unadjusted)	6.68	J	7.08	2.83	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	13.6		7.08	2.83	mg/Kg	1	₽	MA-EPH	Total/NA

### Client Sample ID: WCSB-2 (14-15)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3-Dichlorobenzene	0.0189	J	0.108	0.0111	mg/Kg	1	₩	8260C	Total/NA
Benzene	0.0120	J	0.108	0.0106	mg/Kg	1	₽	8260C	Total/NA

## Client Sample ID: WCSR-1 (1-2)

Client Sample ID: WCSB-1 (1	1-2)					Lal	b S	Sample ID:	480-46783-
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.00238	J	0.00390	0.00150	mg/Kg	1	₽	8260C	Total/NA
2-Butanone (MEK)	0.0740	*	0.0390	0.00285	mg/Kg	1	₩	8260C	Total/NA
Acetone	0.207	J	0.390	0.00656	mg/Kg	1	₩	8260C	Total/NA
Benzene	0.0463		0.00390	0.000382	mg/Kg	1	₩	8260C	Total/NA
Carbon disulfide	0.00556		0.00390	0.00390	mg/Kg	1	₩	8260C	Total/NA
Ethylbenzene	0.0108		0.00390	0.000538	mg/Kg	1	₩	8260C	Total/NA
Isopropylbenzene	0.00173	J	0.00390	0.00117	mg/Kg	1	₩	8260C	Total/NA
m-Xylene & p-Xylene	0.00955		0.00779	0.00131	mg/Kg	1	₩	8260C	Total/NA
n-Butylbenzene	0.00160	J	0.00390	0.000678	mg/Kg	1	₩	8260C	Total/NA
N-Propylbenzene	0.00411		0.00390	0.000623	mg/Kg	1	₩	8260C	Total/NA
o-Xylene	0.00643		0.00390	0.00102	mg/Kg	1	₩	8260C	Total/NA
Tetrachloroethene	0.00179	J	0.00390	0.00105	mg/Kg	1	₩	8260C	Total/NA
Toluene	0.0333		0.00390	0.000589	mg/Kg	1	₩	8260C	Total/NA
C11-C22 Aromatics (unadjusted)	301		5.54	2.22	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	10.6		5.54	2.22	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	22.9	В	5.54	2.22	mg/Kg	1	₩.	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	145		5.92	5.92	mg/Kg	1	₩	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-46783-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	5.27		4.65	2.39	mg/Kg	100	₩	8082	Total/NA
C11-C22 Aromatics (unadjusted)	3.19	J	7.03	2.81	mg/Kg	1	₩	MA-EPH	Total/NA
Arsenic	19.3		1.42	0.569	mg/Kg	1	₽	6010	Total/NA
Barium	21.5		0.711	0.156	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.577		0.284	0.0398	mg/Kg	1	₽	6010	Total/NA
Chromium	17.6		0.711	0.284	mg/Kg	1	₽	6010	Total/NA
Nickel	22.8		1.42	0.327	mg/Kg	1	₽	6010	Total/NA
Vanadium	26.9		0.711	0.156	mg/Kg	1	₽	6010	Total/NA
Zinc	82.6	В	3.55	0.218	mg/Kg	1	₽	6010	Total/NA
Lead	183		0.711	0.341	mg/Kg	1	₩.	6010	Total/NA
Selenium	1.10	۸	0.711	0.569	mg/Kg	1	₩	6010	Total/NA
Mercury	0.0171	J	0.138	0.0112	mg/Kg	1	₩	7471A	Total/NA

### Client Sample ID: WCSB-1 (7-8)

## Lab Sample ID: 480-46783-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.0286	*	0.0273	0.00200	mg/Kg	1	₩	8260C	Total/NA
Acetone	0.0965	J	0.273	0.00459	mg/Kg	1	₽	8260C	Total/NA
Benzene	0.00156	J	0.00273	0.000267	mg/Kg	1	₩	8260C	Total/NA
Carbon disulfide	0.00822		0.00273	0.00273	mg/Kg	1	₩	8260C	Total/NA
Ethylbenzene	0.000546	J	0.00273	0.000376	mg/Kg	1	₩	8260C	Total/NA
Naphthalene	0.00993	J	0.0273	0.000731	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.00147	J	0.00273	0.000412	mg/Kg	1	₩.	8260C	Total/NA
PCB-1260	0.0307	J	0.0443	0.0228	mg/Kg	1	₽	8082	Total/NA
C11-C22 Aromatics (unadjusted)	33.3		6.40	2.56	mg/Kg	1	₽	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	21.5		6.74	6.74	mg/Kg	1	₽	MA-EPH	Total/NA

### Client Sample ID: WCSB-3 (5-6)

### Lab Sample ID: 480-46783-22

Γ						_		
Analyte	Result Qualifier	RL	MDL	Unit	DII Fac	D	Method	Prep Type
4-Isopropyltoluene	0.00369	0.00303	0.000486	mg/Kg	1	₩	8260C	Total/NA
Acetone	0.00815 J	0.303	0.00510	mg/Kg	1	₽	8260C	Total/NA
Naphthalene	0.0486	0.0303	0.000812	mg/Kg	1	₩	8260C	Total/NA
Tetrachloroethene	0.00373	0.00303	0.000813	mg/Kg	1	₽	8260C	Total/NA

### Client Sample ID: WCSB-3 (7-8)

## Lab Sample ID: 480-46783-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	1.20		0.344	0.0138	mg/Kg	1	₩	MA VPH	Total/NA
Benzene	0.0616	J	0.101	0.0202	mg/Kg	1	₽	MAVPH	Total/NA
Ethylbenzene	0.0281	J	0.101	0.0202	mg/Kg	1	₽	MAVPH	Total/NA
Naphthalene	0.107	В	0.101	0.0202	mg/Kg	1	₽	MAVPH	Total/NA
Toluene	0.0306	J	0.101	0.0202	mg/Kg	1	₩	MAVPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.964	В	0.504	0.0202	mg/Kg	1	₽	MAVPH	Total/NA
C9-C10 Aromatics	1.12		0.504	0.0202	mg/Kg	1	\$	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.659	В	0.504	0.0202	mg/Kg	1	₽	MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	5.54	J	6.52	2.61	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	12.7		6.52	2.61	mg/Kg	1	₩.	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-9 (1-2)

Lab Sample ID: 480-46783-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	237		5.75	2.30	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	1940		5.75	2.30	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	180	В	5.75	2.30	mg/Kg	1	₽	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	110		5 98	5 98	ma/Ka		☼	MΔ_EPH	Total/NA

Client Sample ID: WCSB-9 (2.5-3) Lab Sample ID: 480-46783-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.0408		0.0388	0.0200	mg/Kg	1	₩	8082	Total/NA
Arsenic	6.70		1.10	0.440	mg/Kg	1	₩	6010	Total/NA
Barium	112		0.550	0.121	mg/Kg	1	₩	6010	Total/NA
Beryllium	1.45		0.220	0.0308	mg/Kg	1	Þ	6010	Total/NA
Cadmium	0.695	^	0.220	0.0330	mg/Kg	1	₽	6010	Total/NA
Chromium	13.6		0.550	0.220	mg/Kg	1	₩	6010	Total/NA
Nickel	15.1		1.10	0.253	mg/Kg	1	₩	6010	Total/NA
Vanadium	22.0		0.550	0.121	mg/Kg	1	₩	6010	Total/NA
Zinc	278	В	2.75	0.168	mg/Kg	1	₩	6010	Total/NA
Lead	218		0.550	0.264	mg/Kg	1	₽	6010	Total/NA
Selenium	1.00	^	0.550	0.440	mg/Kg	1	₽	6010	Total/NA
Mercury	0.207		0.113	0.00919	ma/Ka	1	₩	7471A	Total/NA

Client Sample ID: WCSB-909 (2.5-3) Lab Sample ID: 480-46783-26

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
PCB-1260	0.0555	0.0390	0.0201 mg/Kg	1 🐺 8082	Total/NA

Client Sample ID: WCSB-10 (2.5-3) Lab Sample ID: 480-46783-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.74		1.07	0.427	mg/Kg	1	₩	6010	Total/NA
Barium	31.6		0.534	0.117	mg/Kg	1	₽	6010	Total/NA
Beryllium	1.93		0.213	0.0299	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.348	^	0.213	0.0320	mg/Kg	1	₽	6010	Total/NA
Chromium	1.52		0.534	0.213	mg/Kg	1	₽	6010	Total/NA
Nickel	3.20		1.07	0.245	mg/Kg	1	₽	6010	Total/NA
Vanadium	2.32		0.534	0.117	mg/Kg	1	₽	6010	Total/NA
Zinc	163	В	2.67	0.163	mg/Kg	1	₽	6010	Total/NA
Lead	356		0.534	0.256	mg/Kg	1	₽	6010	Total/NA
Selenium	0.706	^	0.534	0.427	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0769	J	0.102	0.00828	mg/Kg	1	₽	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 09:15

Date Received: 09/28/13 01:00

Isopropyl ether

Client Sample ID: WCSB-11 (1-2)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-1

Matrix: Solid

Percent Solids: 97.7

Method: 8260C - Volatile Organ Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00351		0.00351	0.000701	mg/Kg	— <del> </del>	10/02/13 11:15	10/02/13 17:37	
1,1,1-Trichloroethane	<0.00351		0.00351	0.000509	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
1,1,2,2-Tetrachloroethane	<0.00351		0.00351	0.00114		₩	10/02/13 11:15	10/02/13 17:37	
1,1,2-Trichloroethane	<0.00351		0.00351	0.000912			10/02/13 11:15	10/02/13 17:37	
1,1-Dichloroethane	<0.00351		0.00351	0.000856		₩	10/02/13 11:15	10/02/13 17:37	
1,1-Dichloroethene	< 0.00351		0.00351		mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
1,1-Dichloropropene	<0.00351		0.00351	0.000996			10/02/13 11:15	10/02/13 17:37	
1,2,3-Trichlorobenzene	<0.00351		0.00351	0.000745		₽	10/02/13 11:15	10/02/13 17:37	
1,2,3-Trichloropropane	< 0.00351		0.00351	0.000714	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
1,2,4-Trichlorobenzene	< 0.00351		0.00351	0.000714	mg/Kg	 Ф	10/02/13 11:15	10/02/13 17:37	
1,2,4-Trimethylbenzene	<0.00351		0.00351	0.000426	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
1,2-Dibromo-3-Chloropropane	<0.0351		0.0351	0.00351	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
1,2-Dichlorobenzene	<0.00351		0.00351	0.000548	mg/Kg		10/02/13 11:15	10/02/13 17:37	
1,2-Dichloroethane	<0.00351		0.00351	0.000348			10/02/13 11:15	10/02/13 17:37	
•	<0.00351		0.00351	0.000352	mg/Kg		10/02/13 11:15	10/02/13 17:37	
1,2-Dichloropropane					mg/Kg				
1,3,5-Trimethylbenzene	<0.00351		0.00351	0.000452	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
1,3-Dichlorobenzene	<0.00351		0.00351	0.000360	mg/Kg	<b>₩</b>	10/02/13 11:15	10/02/13 17:37	
1,3-Dichloropropane	<0.00351		0.00351	0.000421	mg/Kg		10/02/13 11:15	10/02/13 17:37	
1,4-Dichlorobenzene	<0.00351		0.00351	0.000982		<b>\$</b>	10/02/13 11:15	10/02/13 17:37	
1,4-Dioxane	<0.351		0.351	0.0338	mg/Kg	<b>*</b>	10/02/13 11:15	10/02/13 17:37	
2,2-Dichloropropane	<0.00351		0.00351	0.00119	mg/Kg	<u></u> .	10/02/13 11:15	10/02/13 17:37	
2-Butanone (MEK)	<0.0351	*	0.0351	0.00257		₩	10/02/13 11:15	10/02/13 17:37	
2-Chlorotoluene	<0.00351		0.00351	0.000460	mg/Kg	<b>*</b>	10/02/13 11:15	10/02/13 17:37	
2-Hexanone	<0.0351		0.0351	0.00351	mg/Kg		10/02/13 11:15	10/02/13 17:37	
4-Chlorotoluene	<0.00351		0.00351	0.000828	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
4-Isopropyltoluene	<0.00351		0.00351	0.000562	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
4-Methyl-2-pentanone (MIBK)	0.00696	J	0.0351	0.00230	mg/Kg		10/02/13 11:15	10/02/13 17:37	
Acetone	0.0138	J	0.351	0.00590	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
Benzene	0.00210	J	0.00351	0.000344	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Bromobenzene	<0.00351		0.00351	0.00123	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Bromoform	<0.00351		0.00351	0.00351	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
Bromomethane	< 0.00701		0.00701	0.000631	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
Carbon disulfide	< 0.00351		0.00351	0.00351	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Carbon tetrachloride	<0.00351		0.00351	0.000679	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Chlorobenzene	< 0.00351		0.00351	0.000926	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Chlorobromomethane	< 0.00351		0.00351	0.000506	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Chlorodibromomethane	<0.00351		0.00351	0.000898	mg/Kg		10/02/13 11:15	10/02/13 17:37	
Chloroethane	< 0.00701		0.00701	0.00158	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Chloroform	< 0.00351		0.00351	0.000433	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Chloromethane	<0.00701		0.00701	0.000424	mg/Kg		10/02/13 11:15	10/02/13 17:37	
cis-1,2-Dichloroethene	< 0.00351		0.00351	0.000898	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
cis-1,3-Dichloropropene	<0.00351		0.00351	0.00101	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
Dichlorobromomethane	<0.00351		0.00351	0.000940	mg/Kg	· · · · · · · · · · · · · · ·	10/02/13 11:15	10/02/13 17:37	
Dichlorodifluoromethane	<0.00701		0.00701	0.000579	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	
Ethyl ether	<0.00351		0.00351	0.00295		☼	10/02/13 11:15	10/02/13 17:37	
Ethylbenzene	0.00838		0.00351	0.000484			10/02/13 11:15	10/02/13 17:37	
Ethylene Dibromide	< 0.00351		0.00351	0.000900	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	
Hexachlorobutadiene	< 0.00351		0.00351	0.000822		₽	10/02/13 11:15	10/02/13 17:37	

TestAmerica Buffalo

10/02/13 17:37

10/02/13 11:15

0.00351

0.00351 mg/Kg

< 0.00351

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 09:15

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-11 (1-2)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-1

Matrix: Solid

	viau ix.	Juliu
Percent	Solids:	97.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<0.00351		0.00351	0.00106	mg/Kg	<u> </u>	10/02/13 11:15	10/02/13 17:37	1
Methyl tert-butyl ether	< 0.00351		0.00351	0.000689	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
Methylene Chloride	<0.00351		0.00351	0.00323	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
m-Xylene & p-Xylene	0.0169		0.00701	0.00118	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
Naphthalene	<0.0351		0.0351	0.000940	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
n-Butylbenzene	<0.00351		0.00351	0.000610	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
N-Propylbenzene	<0.00351		0.00351	0.000561	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
o-Xylene	0.00689		0.00351	0.000916	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
sec-Butylbenzene	<0.00351		0.00351	0.000610	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
Styrene	0.00364		0.00351	0.000351	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
Tert-amyl methyl ether	< 0.00351		0.00351	0.00180	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
Tert-butyl ethyl ether	<0.00351		0.00351	0.00309	mg/Kg	<b>\$</b>	10/02/13 11:15	10/02/13 17:37	1
tert-Butylbenzene	< 0.00351		0.00351	0.000729	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
Tetrachloroethene	0.257		0.00351	0.000941	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
Tetrahydrofuran	<0.0701		0.0701	0.00645	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
Toluene	0.00399		0.00351	0.000530	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
trans-1,2-Dichloroethene	< 0.00351		0.00351	0.000724	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
trans-1,3-Dichloropropene	<0.00351		0.00351	0.00309	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
Trichloroethene	0.00658		0.00351	0.00154	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
Trichlorofluoromethane	< 0.00701		0.00701	0.000663	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
Vinyl chloride	<0.00351		0.00351	0.000856	mg/Kg	₩	10/02/13 11:15	10/02/13 17:37	1
Dibromomethane	<0.00351		0.00351	0.000722	mg/Kg	₽	10/02/13 11:15	10/02/13 17:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130				10/02/13 11:15	10/02/13 17:37	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130				10/02/13 11:15	10/02/13 17:37	1
4-Bromofluorobenzene (Surr)	93		70 - 130				10/02/13 11:15	10/02/13 17:37	1
Method: MA VPH - Massachuse	etts - Volatile Pe	troleum Hv	drocarbons (0	C)					
Analyte		Qualifier	RL	•	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.665		0.256	0.0102	mg/Kg	<u> </u>		10/07/13 11:24	1
C9-C12 Aliphatics (adjusted)	<0.256		0.256	0.0102	mg/Kg	\$		10/07/13 11:24	1
Method: MAVPH - Massachuse	tts - Volatile Pet	roleum Hyd	rocarbons (G	C)					
Analyte		Qualifier	RL	•	Unit	D	Prepared	Analyzed	Dil Fac
CE C9 Aliphatics (unadjusted)	0.676		0.255	0.0102	ma/Ka	<u>#</u>	10/01/13 12:20	10/03/13 11:50	

C5-C8 Aliphatics (unadjusted)	0.676 E	В	0.255	0.0102	mg/Kg	<del></del>	10/01/13 12:20	10/03/13 11:50	1
C9-C10 Aromatics	0.273		0.255	0.0102	mg/Kg	₽	10/01/13 12:20	10/03/13 11:50	1
C9-C12 Aliphatics (unadjusted)	0.538 E	В	0.255	0.0102	mg/Kg	₽	10/01/13 12:20	10/03/13 11:50	1
Surrogate	%Recovery G	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surrogate  2,5-Dibromotoluene (fid)	%Recovery G	Qualifier	Limits 70 - 130				Prepared 10/01/13 12:20	Analyzed 10/03/13 11:50	Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	1660		49.1	19.6	mg/Kg	<u> </u>	09/30/13 08:34	10/04/13 08:20	10
C19-C36 Aliphatics	242		49.1	19.6	mg/Kg	₽	09/30/13 08:34	10/04/13 08:20	10
C9-C18 Aliphatics	<49.1		49.1	19.6	mg/Kg	₩	09/30/13 08:34	10/04/13 08:20	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	1120		51.2	51.2	mg/Kg	₩		10/04/13 10:18	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-1

Matrix: Solid

Percent Solids: 97.7

Client Sample ID: WCSB-11 (1-2)
Date Collected: 09/25/13 09:15

Date Collected: 09/25/13 09:15 Date Received: 09/28/13 01:00

urrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil F
-Chlorooctadecane	53	40 - 140	09/30/13 08:34	10/04/13 08:20	
2-Bromonaphthalene	70	40 - 140	09/30/13 08:34	10/04/13 08:20	
2-Fluorobiphenyl	83	40 - 140	09/30/13 08:34	10/04/13 08:20	
o-Terphenyl	40	40 - 140	09/30/13 08:34	10/04/13 08:20	

Client Sample ID: WCSB-11 (2.5-3)

Lab Sample ID: 480-46783-2

Date Collected: 09/25/13 09:20 Matrix: Solid
Date Received: 09/28/13 01:00 Percent Solids: 93.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.347		0.347	0.221	mg/Kg	*	10/01/13 10:09	10/04/13 14:36	10
PCB-1221	<0.347		0.347	0.168	mg/Kg	₽	10/01/13 10:09	10/04/13 14:36	10
PCB-1232	<0.347		0.347	0.147	mg/Kg	₩	10/01/13 10:09	10/04/13 14:36	10
PCB-1242	<0.347		0.347	0.137	mg/Kg	*	10/01/13 10:09	10/04/13 14:36	10
PCB-1248	<0.347		0.347	0.179	mg/Kg	₩	10/01/13 10:09	10/04/13 14:36	10
PCB-1254	0.630		0.347	0.179	mg/Kg	₽	10/01/13 10:09	10/04/13 14:36	10
PCB-1260	<0.347		0.347	0.179	mg/Kg	₽	10/01/13 10:09	10/04/13 14:36	10
PCB-1262	<0.347		0.347	0.284	mg/Kg	₽	10/01/13 10:09	10/04/13 14:36	10
PCB-1268	<0.347		0.347	0.147	mg/Kg	₩	10/01/13 10:09	10/04/13 14:36	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				10/01/13 10:09	10/04/13 14:36	10
Tetrachloro-m-xylene	0	X	30 - 150				10/01/13 10:09	10/04/13 14:36	10
DCB Decachlorobiphenyl	197	X	30 - 150				10/01/13 10:09	10/04/13 14:36	10
DCB Decachlorobiphenyl	120		30 - 150				10/01/13 10:09	10/04/13 14:36	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.442	J	0.500	0.200	mg/Kg	₩	09/30/13 14:10	10/01/13 19:58	1
Arsenic	4.99		1.00	0.400	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Barium	87.7		0.500	0.110	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Beryllium	0.662		0.200	0.0280	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Cadmium	26.3	^	0.200	0.0300	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Chromium	24.5		0.500	0.200	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Nickel	34.1		1.00	0.230	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Thallium	<1.00		1.00	0.300	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Vanadium	20.2		0.500	0.110	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Zinc	541	В	2.50	0.153	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Lead	460		0.500	0.240	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Selenium	0.761	^	0.500	0.400	mg/Kg	₽	09/30/13 14:10	10/01/13 19:58	1
Antimony	1.50	^	0.500	0.400	mg/Kg	\$	09/30/13 14:10	10/01/13 19:58	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.24		0.514	0.0417	mg/Kg	<del>\</del>	09/30/13 10:40	09/30/13 13:50	5

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-7 (2.5-3)

Client Sample ID: WCSB-7 (4-5)

Lab Sample ID: 480-46783-3 Date Collected: 09/25/13 10:45 Matrix: Solid Date Received: 09/28/13 01:00

Percent Solids: 90.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0368		0.0368	0.0234	mg/Kg	<del></del>	10/01/13 09:24	10/04/13 16:36	1
PCB-1221	<0.0368		0.0368	0.0178	mg/Kg	₩	10/01/13 09:24	10/04/13 16:36	1
PCB-1232	<0.0368		0.0368	0.0156	mg/Kg	₩	10/01/13 09:24	10/04/13 16:36	1
PCB-1242	<0.0368		0.0368	0.0145	mg/Kg	*	10/01/13 09:24	10/04/13 16:36	1
PCB-1248	<0.0368		0.0368	0.0189	mg/Kg	₽	10/01/13 09:24	10/04/13 16:36	1
PCB-1254	<0.0368		0.0368	0.0189	mg/Kg	₽	10/01/13 09:24	10/04/13 16:36	1
PCB-1260	0.0381		0.0368	0.0189	mg/Kg	*	10/01/13 09:24	10/04/13 16:36	1
PCB-1262	<0.0368		0.0368	0.0301	mg/Kg	₽	10/01/13 09:24	10/04/13 16:36	1
PCB-1268	<0.0368		0.0368	0.0156	mg/Kg	₩	10/01/13 09:24	10/04/13 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		30 - 150				10/01/13 09:24	10/04/13 16:36	1
Tetrachloro-m-xylene	64		30 - 150				10/01/13 09:24	10/04/13 16:36	1
DCB Decachlorobiphenyl	280	X	30 - 150				10/01/13 09:24	10/04/13 16:36	1
DCB Decachlorobiphenyl	46		30 - 150				10/01/13 09:24	10/04/13 16:36	1
Wethod: 6010 - Metals (ICP)									
Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result 5.28	Qualifier	RL 0.501	MDL 0.201	Unit mg/Kg	D 	Prepared 09/30/13 14:10	Analyzed 10/01/13 20:01	
Analyte		Qualifier							
Analyte Silver	5.28	Qualifier	0.501	0.201 0.401	mg/Kg	<del></del>	09/30/13 14:10	10/01/13 20:01	1
Analyte Silver Arsenic	5.28 8.00	Qualifier	0.501	0.201 0.401	mg/Kg mg/Kg mg/Kg	<del></del>	09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01	1
Analyte Silver Arsenic Barium	5.28 8.00 230		0.501 1.00 0.501	0.201 0.401 0.110	mg/Kg mg/Kg mg/Kg	<del>*</del> *	09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01	1
Analyte Silver Arsenic Barium Beryllium	5.28 8.00 230 0.442		0.501 1.00 0.501 0.201	0.201 0.401 0.110 0.0281	mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$ \$	09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01	1 1 1 1
Analyte Silver Arsenic Barium Beryllium Cadmium	5.28 8.00 230 0.442 6.93		0.501 1.00 0.501 0.201 0.201	0.201 0.401 0.110 0.0281 0.0301	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$ \$ \$	09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01	1 1 1 1
Analyte Silver Arsenic Barium Beryllium Cadmium Chromium	5.28 8.00 230 0.442 6.93 518	^	0.501 1.00 0.501 0.201 0.201 0.501	0.201 0.401 0.110 0.0281 0.0301 0.201	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	* * * * * * * * * * * * * * * * * * *	09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01	1 1 1 1
Analyte Silver Arsenic Barium Beryllium Cadmium Chromium	5.28 8.00 230 0.442 6.93 518 62.6	^	0.501 1.00 0.501 0.201 0.201 0.501 1.00	0.201 0.401 0.110 0.0281 0.0301 0.201 0.231 0.301	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01	1 1 1 1 1
Analyte Silver Arsenic Barium Beryllium Cadmium Chromium Nickel	5.28 8.00 230 0.442 6.93 518 62.6 0.831	J	0.501 1.00 0.501 0.201 0.201 0.501 1.00	0.201 0.401 0.110 0.0281 0.0301 0.201 0.231 0.301 0.110	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01	1 1 1 1 1 1 1
Analyte Silver Arsenic Barium Beryllium Cadmium Chromium Nickel Thallium	5.28 8.00 230 0.442 6.93 518 62.6 0.831 213	J	0.501 1.00 0.501 0.201 0.201 0.501 1.00 1.00	0.201 0.401 0.110 0.0281 0.0301 0.201 0.231 0.301 0.110	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01	1 1 1 1 1 1
Analyte Silver Arsenic Barium Beryllium Cadmium Chromium Nickel Thallium Vanadium	5.28 8.00 230 0.442 6.93 518 62.6 0.831 213	J B	0.501 1.00 0.501 0.201 0.201 0.501 1.00 1.00 0.501 12.5	0.201 0.401 0.110 0.0281 0.0301 0.201 0.231 0.301 0.110	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg		09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10 09/30/13 14:10	10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/01/13 20:01 10/02/13 22:52	1 1 1 1 1 1 1 1 5

Analyte Result Qualifier RLMDL Unit Prepared Analyzed Dil Fac  $\overline{\Box}$ 1.06 0.0860 mg/Kg 09/30/13 10:40 09/30/13 13:52 Mercury 2.94

Date Collected: 09/25/13 10:55 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 88.5

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00256	0.00256	0.000512	mg/Kg	<u> </u>	10/02/13 11:15	10/02/13 18:03	1
1,1,1-Trichloroethane	<0.00256	0.00256	0.000372	mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
1,1,2,2-Tetrachloroethane	<0.00256	0.00256	0.000830	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,1,2-Trichloroethane	<0.00256	0.00256	0.000665	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,1-Dichloroethane	<0.00256	0.00256	0.000624	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,1-Dichloroethene	<0.00256	0.00256	0.000626	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,1-Dichloropropene	<0.00256	0.00256	0.000727	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,2,3-Trichlorobenzene	<0.00256	0.00256	0.000544	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1

Lab Sample ID: 480-46783-4

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 10:55

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-7 (4-5)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-4

Matrix: Solid

Percent Solids: 88.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.00256		0.00256	0.000521	mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
1,2,4-Trichlorobenzene	<0.00256		0.00256	0.000311	mg/Kg	*	10/02/13 11:15	10/02/13 18:03	1
1,2,4-Trimethylbenzene	<0.00256		0.00256	0.000983	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,2-Dibromo-3-Chloropropane	<0.0256		0.0256	0.00256	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,2-Dichlorobenzene	<0.00256		0.00256	0.000400	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,2-Dichloroethane	<0.00256		0.00256	0.000257	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,2-Dichloropropane	<0.00256		0.00256	0.00256	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,3,5-Trimethylbenzene	<0.00256		0.00256	0.000330	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,3-Dichlorobenzene	<0.00256		0.00256	0.000263	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,3-Dichloropropane	<0.00256		0.00256	0.000307	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,4-Dichlorobenzene	<0.00256		0.00256	0.000717	mg/Kg	*	10/02/13 11:15	10/02/13 18:03	1
1,4-Dioxane	<0.256		0.256	0.0247	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
2,2-Dichloropropane	<0.00256		0.00256	0.000870	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
2-Butanone (MEK)	<0.0256	*	0.0256	0.00187	mg/Kg	*	10/02/13 11:15	10/02/13 18:03	1
2-Chlorotoluene	<0.00256		0.00256	0.000336	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
2-Hexanone	<0.0256		0.0256	0.00256	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
4-Chlorotoluene	<0.00256		0.00256	0.000604	mg/Kg	*	10/02/13 11:15	10/02/13 18:03	1
4-Isopropyltoluene	<0.00256		0.00256	0.000410	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
4-Methyl-2-pentanone (MIBK)	< 0.0256		0.0256	0.00168	ma/Ka	☼	10/02/13 11:15	10/02/13 18:03	1

1,2,0 Themoropropane	10.00200	0.00200	0.000021 mg/rtg		10/02/10 11:10	10/02/10 10:00	
1,2,4-Trichlorobenzene	<0.00256	0.00256	0.000311 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
1,2,4-Trimethylbenzene	<0.00256	0.00256	0.000983 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,2-Dibromo-3-Chloropropane	<0.0256	0.0256	0.00256 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
1,2-Dichlorobenzene	<0.00256	0.00256	0.000400 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,2-Dichloroethane	<0.00256	0.00256	0.000257 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
1,2-Dichloropropane	<0.00256	0.00256	0.00256 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
1,3,5-Trimethylbenzene	<0.00256	0.00256	0.000330 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,3-Dichlorobenzene	<0.00256	0.00256	0.000263 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,3-Dichloropropane	<0.00256	0.00256	0.000307 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
1,4-Dichlorobenzene	<0.00256	0.00256	0.000717 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
1,4-Dioxane	<0.256	0.256	0.0247 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
2,2-Dichloropropane	<0.00256	0.00256	0.000870 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
2-Butanone (MEK)	<0.0256 *	0.0256	0.00187 mg/Kg	\$	10/02/13 11:15	10/02/13 18:03	1
2-Chlorotoluene	<0.00256	0.00256	0.000336 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
2-Hexanone	<0.0256	0.0256	0.00256 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
4-Chlorotoluene	<0.00256	0.00256	0.000604 mg/Kg	\$	10/02/13 11:15	10/02/13 18:03	1
4-Isopropyltoluene	<0.00256	0.00256	0.000410 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
4-Methyl-2-pentanone (MIBK)	<0.0256	0.0256	0.00168 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
Acetone	0.00914 J	0.256	0.00431 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Benzene	<0.00256	0.00256	0.000251 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Bromobenzene	<0.00256	0.00256	0.000901 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
Bromoform	<0.00256	0.00256	0.00256 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Bromomethane	<0.00512	0.00512	0.000461 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
Carbon disulfide	<0.00256	0.00256	0.00256 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Carbon tetrachloride	<0.00256	0.00256	0.000495 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Chlorobenzene	<0.00256	0.00256	0.000676 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
Chlorobromomethane	<0.00256	0.00256	0.000370 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Chlorodibromomethane	<0.00256	0.00256	0.000655 mg/Kg	\$	10/02/13 11:15	10/02/13 18:03	1
Chloroethane	<0.00512	0.00512	0.00116 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Chloroform	<0.00256	0.00256	0.000316 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
Chloromethane	<0.00512	0.00512	0.000309 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
cis-1,2-Dichloroethene	<0.00256	0.00256	0.000655 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
cis-1,3-Dichloropropene	<0.00256	0.00256	0.000737 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Dichlorobromomethane	<0.00256	0.00256	0.000686 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Dichlorodifluoromethane	<0.00512	0.00512	0.000423 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Ethyl ether	<0.00256	0.00256	0.00215 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Ethylbenzene	<0.00256	0.00256	0.000353 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
Ethylene Dibromide	<0.00256	0.00256	0.000657 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Hexachlorobutadiene	<0.00256	0.00256	0.000600 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Isopropyl ether	<0.00256	0.00256	0.00256 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Isopropylbenzene	<0.00256	0.00256	0.000772 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Methyl tert-butyl ether	<0.00256	0.00256	0.000503 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Methylene Chloride	<0.00256	0.00256	0.00235 mg/Kg	\$	10/02/13 11:15	10/02/13 18:03	1
m-Xylene & p-Xylene	<0.00512	0.00512	0.000860 mg/Kg	☼	10/02/13 11:15	10/02/13 18:03	1
Naphthalene	<0.0256	0.0256	0.000686 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
n-Butylbenzene	<0.00256	0.00256	0.000445 mg/Kg		10/02/13 11:15	10/02/13 18:03	1
N-Propylbenzene	<0.00256	0.00256	0.000409 mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
o-Xylene	<0.00256	0.00256	0.000668 mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 10:55

Date Received: 09/28/13 01:00

Toluene-d8 (Surr)

2-Fluorobiphenyl

o-Terphenyl

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Client Sample ID: WCSB-7 (4-5)

TestAmerica Job ID: 480-46783-1

10/02/13 11:15

10/02/13 11:15

10/02/13 11:15

09/30/13 08:34

09/30/13 08:34

10/02/13 18:03

10/02/13 18:03

10/02/13 18:03

Lab Sample ID: 480-46783-4

Matrix: Solid

Percent Solids: 88.5

Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.00256	0.00256	0.000445	mg/Kg	₩	10/02/13 11:15	10/02/13 18:03	1
Styrene	<0.00256	0.00256	0.000256	mg/Kg	\$	10/02/13 11:15	10/02/13 18:03	1
Tert-amyl methyl ether	<0.00256	0.00256	0.00131	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Tert-butyl ethyl ether	<0.00256	0.00256	0.00225	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
tert-Butylbenzene	<0.00256	0.00256	0.000532	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Tetrachloroethene	0.0102	0.00256	0.000687	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Tetrahydrofuran	<0.0512	0.0512	0.00471	mg/Kg	\$	10/02/13 11:15	10/02/13 18:03	1
Toluene	<0.00256	0.00256	0.000387	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
trans-1,2-Dichloroethene	<0.00256	0.00256	0.000528	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
trans-1,3-Dichloropropene	<0.00256	0.00256	0.00225	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Trichloroethene	<0.00256	0.00256	0.00113	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Trichlorofluoromethane	<0.00512	0.00512	0.000484	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Vinyl chloride	<0.00256	0.00256	0.000624	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Dibromomethane	<0.00256	0.00256	0.000527	mg/Kg	₽	10/02/13 11:15	10/02/13 18:03	1
Surrogate	%Recovery Qua	alifier Limits				Prepared	Analyzed	Dil Fac

	Volatile Pet	roleum Hyd	rocarbons (G	GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.0523	J	0.283	0.0113	mg/Kg	<del>-</del>		10/07/13 11:24	1
C9-C12 Aliphatics (adjusted)	<0.283		0.283	0.0113	mg/Kg	₩		10/07/13 11:24	1

70 - 130

70 - 130

70 - 130

98

101

95

110

88

Method: MAVPH - Massachuset	tts - Volatile Pet	roleum Hyd	Irocarbons (G	C)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.0463	J B	0.213	0.00852	mg/Kg	<del></del>	10/01/13 12:20	10/02/13 03:25	1
C9-C10 Aromatics	0.0362	J	0.213	0.00852	mg/Kg	₽	10/01/13 12:20	10/02/13 03:25	1
C9-C12 Aliphatics (unadjusted)	0.0380	J	0.213	0.00852	mg/Kg	₩	10/01/13 12:20	10/02/13 03:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	88		70 - 130				10/01/13 12:20	10/02/13 03:25	1
2,5-Dibromotoluene (pid)	87		70 - 130				10/01/13 12:20	10/02/13 03:25	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	<5.34		5.34	2.14	mg/Kg	₩	09/30/13 08:34	10/02/13 14:21	1
C19-C36 Aliphatics	4.91	J	5.34	2.14	mg/Kg	₽	09/30/13 08:34	10/02/13 14:21	1
C9-C18 Aliphatics	2.42	JB	5.34	2.14	mg/Kg	₩	09/30/13 08:34	10/02/13 14:21	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<5.65		5.65	5.65	mg/Kg	<del>\</del>		10/04/13 10:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4.000.000.000	83		40 - 140				09/30/13 08:34	10/02/13 14:21	
1-Chlorooctadecane	63		40 - 140				03/30/13 00.34	10/02/13 14.21	,

40 - 140

40 - 140

TestAmerica Buffalo

10/02/13 14:21

10/02/13 14:21

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9

11

12

14

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 11:10

Date Received: 09/28/13 01:00

Ethylene Dibromide

Hexachlorobutadiene

Isopropyl ether

Client Sample ID: WCSB-7 (7.5-8)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-5

Matrix: Solid

Percent Solids: 65.3

Method: 8260C - Volatile Organ Analyte	Result Qualifier	RL .		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00418	0.00418	0.000836	mg/Kg	**	10/01/13 11:37	10/01/13 18:30	1
1,1,1-Trichloroethane	<0.00418	0.00418	0.000607	mg/Kg	₽-	10/01/13 11:37	10/01/13 18:30	1
1,1,2,2-Tetrachloroethane	<0.00418	0.00418	0.00136	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
1,1,2-Trichloroethane	<0.00418	0.00418	0.00109	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,1-Dichloroethane	<0.00418	0.00418	0.00102	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
1,1-Dichloroethene	<0.00418	0.00418	0.00102	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
1,1-Dichloropropene	<0.00418	0.00418	0.00119	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
1,2,3-Trichlorobenzene	<0.00418	0.00418	0.000888	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,2,3-Trichloropropane	<0.00418	0.00418	0.000851	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,2,4-Trichlorobenzene	<0.00418	0.00418	0.000509	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,2,4-Trimethylbenzene	<0.00418	0.00418	0.00161	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,2-Dibromo-3-Chloropropane	<0.0418	0.0418	0.00418	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,2-Dichlorobenzene	<0.00418	0.00418	0.000654	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,2-Dichloroethane	<0.00418	0.00418	0.000420	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,2-Dichloropropane	<0.00418	0.00418	0.00418	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
1,3,5-Trimethylbenzene	<0.00418	0.00418	0.000539	mg/Kg	\$	10/01/13 11:37	10/01/13 18:30	1
1,3-Dichlorobenzene	<0.00418	0.00418	0.000430	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,3-Dichloropropane	<0.00418	0.00418	0.000502	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,4-Dichlorobenzene	<0.00418	0.00418	0.00117	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
1,4-Dioxane	<0.418	0.418	0.0403	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
2,2-Dichloropropane	<0.00418	0.00418	0.00142	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
2-Butanone (MEK)	<0.0418	0.0418	0.00306	mg/Kg	\$	10/01/13 11:37	10/01/13 18:30	1
2-Chlorotoluene	<0.00418	0.00418	0.000549	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
2-Hexanone	<0.0418	0.0418	0.00418	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
4-Chlorotoluene	<0.00418	0.00418	0.000987	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
4-Isopropyltoluene	<0.00418	0.00418	0.000671	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
4-Methyl-2-pentanone (MIBK)	<0.0418	0.0418	0.00274	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Acetone	0.0750 J	0.418	0.00704	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
Benzene	<0.00418	0.00418	0.000410	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Bromobenzene	<0.00418	0.00418	0.00147	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Bromoform	<0.00418	0.00418	0.00418	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
Bromomethane	<0.00836	0.00836	0.000753	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Carbon disulfide	0.00834	0.00418	0.00418	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Carbon tetrachloride	<0.00418	0.00418	0.000810	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
Chlorobenzene	<0.00418	0.00418	0.00110		₽	10/01/13 11:37	10/01/13 18:30	1
Chlorobromomethane	<0.00418	0.00418	0.000604	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Chlorodibromomethane	<0.00418	0.00418	0.00107			10/01/13 11:37	10/01/13 18:30	1
Chloroethane	<0.00836	0.00836	0.00189		₽	10/01/13 11:37	10/01/13 18:30	1
Chloroform	<0.00418	0.00418	0.000517		₽	10/01/13 11:37	10/01/13 18:30	1
Chloromethane	<0.00836 *	0.00836	0.000505			10/01/13 11:37	10/01/13 18:30	1
cis-1,2-Dichloroethene	<0.00418	0.00418	0.00107		₽	10/01/13 11:37	10/01/13 18:30	1
cis-1,3-Dichloropropene	<0.00418	0.00418	0.00120		₽	10/01/13 11:37	10/01/13 18:30	1
Dichlorobromomethane	<0.00418	0.00418	0.00112		 \$	10/01/13 11:37	10/01/13 18:30	1
Dichlorodifluoromethane	<0.00836	0.00836	0.000691		₩	10/01/13 11:37	10/01/13 18:30	1
Ethyl ether	<0.00418	0.00418	0.00351		₽	10/01/13 11:37	10/01/13 18:30	1
Ethylbenzene	<0.00418	0.00418	0.000577			10/01/13 11:37	10/01/13 18:30	
	0.00.10	2.00110	0.000011	99	بقر	10/01/10 11:07		

TestAmerica Buffalo

10/01/13 18:30

10/01/13 18:30

10/01/13 18:30

10/01/13 11:37

10/01/13 11:37

10/01/13 11:37

0.00418

0.00418

0.00418

<0.00418

<0.00418

< 0.00418

0.00107 mg/Kg

0.000980 mg/Kg

0.00418 mg/Kg

3

5

10

11

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-7 (7.5-8)

Date Collected: 09/25/13 11:10 Date Received: 09/28/13 01:00 Lab Sample ID: 480-46783-5

Matrix: Solid

Percent Solids: 65.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<0.00418		0.00418	0.00126	mg/Kg	<u> </u>	10/01/13 11:37	10/01/13 18:30	1
Methyl tert-butyl ether	<0.00418		0.00418	0.000821	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Methylene Chloride	<0.00418		0.00418	0.00385	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
m-Xylene & p-Xylene	<0.00836		0.00836	0.00141	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Naphthalene	<0.0418		0.0418	0.00112	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
n-Butylbenzene	<0.00418		0.00418	0.000728	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
N-Propylbenzene	<0.00418		0.00418	0.000669	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
o-Xylene	<0.00418		0.00418	0.00109	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
sec-Butylbenzene	<0.00418		0.00418	0.000728	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Styrene	<0.00418		0.00418	0.000418	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
Tert-amyl methyl ether	<0.00418		0.00418	0.00214	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
Tert-butyl ethyl ether	<0.00418		0.00418	0.00368	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
tert-Butylbenzene	<0.00418		0.00418	0.000870	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
Tetrachloroethene	<0.00418	*	0.00418	0.00112	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
Tetrahydrofuran	<0.0836		0.0836	0.00769	mg/Kg	\$	10/01/13 11:37	10/01/13 18:30	1
Toluene	<0.00418		0.00418	0.000632	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
trans-1,2-Dichloroethene	<0.00418		0.00418	0.000863	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
trans-1,3-Dichloropropene	<0.00418		0.00418	0.00368	mg/Kg	\$	10/01/13 11:37	10/01/13 18:30	1
Trichloroethene	<0.00418		0.00418	0.00184	mg/Kg	₩	10/01/13 11:37	10/01/13 18:30	1
Trichlorofluoromethane	<0.00836		0.00836	0.000791	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Vinyl chloride	<0.00418		0.00418	0.00102	mg/Kg		10/01/13 11:37	10/01/13 18:30	1
Dibromomethane	<0.00418		0.00418	0.000861	mg/Kg	₽	10/01/13 11:37	10/01/13 18:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130				10/01/13 11:37	10/01/13 18:30	1

70 - 130

70 - 130

Client Sample ID: WCSB-8 (2-2.5)

94

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Date Collected: 09/25/13 12:15 Date Received: 09/28/13 01:00

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Lab Sample ID: 480-46783-6

10/01/13 18:30

10/01/13 18:30

10/01/13 11:37

10/01/13 11:37

Matrix: Solid Percent Solids: 86.4

Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.0777		0.0777	0.0155	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	1
1,1,1-Trichloroethane	< 0.0777		0.0777	0.0113	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,1,2,2-Tetrachloroethane	<0.0777		0.0777	0.0252	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,1,2-Trichloroethane	<0.0777		0.0777	0.0202	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,1-Dichloroethane	<0.0777		0.0777	0.0190	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,1-Dichloroethene	<0.0777		0.0777	0.0190	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,1-Dichloropropene	<0.0777		0.0777	0.0221	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	1
1,2,3-Trichlorobenzene	<0.0777		0.0777	0.0165	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,2,3-Trichloropropane	< 0.0777		0.0777	0.0158	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,2,4-Trichlorobenzene	<0.0777		0.0777	0.00944	mg/Kg	φ.	10/03/13 12:44	10/03/13 20:13	1
1,2,4-Trimethylbenzene	0.0519 J	J	0.0777	0.0298	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,2-Dibromo-3-Chloropropane	<0.777		0.777	0.0777	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,2-Dichlorobenzene	<0.0777		0.0777	0.0121	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,2-Dichloroethane	< 0.0777		0.0777	0.00780	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,2-Dichloropropane	<0.0777		0.0777	0.0777	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1
1,3,5-Trimethylbenzene	0.0197 J	J	0.0777	0.0100	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-6

Matrix: Solid

Percent Solids: 86.4

Date Collected: 09/25/13 12:15 Date Received: 09/28/13 01:00

Analyte	Result Qualifier	RL	MDL		D	Prepared	Analyzed	Dil F
1,3-Dichlorobenzene	<0.0777	0.0777	0.00798		<b>#</b>	10/03/13 12:44	10/03/13 20:13	
1,3-Dichloropropane	<0.0777	0.0777	0.00932			10/03/13 12:44	10/03/13 20:13	
1,4-Dichlorobenzene	<0.0777	0.0777	0.0217		₩.	10/03/13 12:44	10/03/13 20:13	
1,4-Dioxane	<7.77 *	7.77		mg/Kg	<b>*</b>	10/03/13 12:44	10/03/13 20:13	
2,2-Dichloropropane	<0.0777	0.0777	0.0264	mg/Kg		10/03/13 12:44	10/03/13 20:13	
2-Butanone (MEK)	<0.777 *	0.777	0.0569	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
2-Chlorotoluene	<0.0777	0.0777	0.0102	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
2-Hexanone	<0.777	0.777	0.0777		₽	10/03/13 12:44	10/03/13 20:13	
1-Chlorotoluene	<0.0777	0.0777	0.0183	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	
1-Isopropyltoluene	<0.0777	0.0777	0.0125	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
4-Methyl-2-pentanone (MIBK)	<0.777	0.777	0.0509	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
Acetone	<7.77	7.77	0.131	mg/Kg	*	10/03/13 12:44	10/03/13 20:13	
Benzene	<0.0777	0.0777	0.00761	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	
Bromobenzene	<0.0777	0.0777	0.0273	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	
Bromoform	<0.0777	0.0777	0.0777	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
Bromomethane	<0.155	0.155	0.0140	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	
Carbon disulfide	<0.0777	0.0777	0.0777	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	
Carbon tetrachloride	<0.0777	0.0777	0.0150	mg/Kg		10/03/13 12:44	10/03/13 20:13	
Chlorobenzene	<0.0777	0.0777	0.0205	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
Chlorobromomethane	<0.0777	0.0777	0.0112		₽	10/03/13 12:44	10/03/13 20:13	
Chlorodibromomethane	<0.0777	0.0777	0.0199			10/03/13 12:44	10/03/13 20:13	
Chloroethane	<0.155	0.155	0.0351		₽	10/03/13 12:44	10/03/13 20:13	
Chloroform	<0.0777	0.0777	0.00960		₩	10/03/13 12:44	10/03/13 20:13	
Chloromethane	<0.155	0.155	0.00938			10/03/13 12:44	10/03/13 20:13	
cis-1,2-Dichloroethene	<0.0777	0.0777	0.0199		₩	10/03/13 12:44	10/03/13 20:13	
cis-1,3-Dichloropropene	<0.0777	0.0777	0.0224		₩	10/03/13 12:44	10/03/13 20:13	
Dichlorobromomethane	<0.0777	0.0777	0.0208			10/03/13 12:44	10/03/13 20:13	
Dichlorodifluoromethane	<0.155 *	0.155	0.0128		₩	10/03/13 12:44	10/03/13 20:13	
Ethyl ether	<0.0777	0.0777	0.0652		₩	10/03/13 12:44	10/03/13 20:13	
Ethylbenzene	<0.0777	0.0777	0.0032			10/03/13 12:44	10/03/13 20:13	
•								
Ethylene Dibromide	<0.0777	0.0777	0.0199		₩	10/03/13 12:44	10/03/13 20:13	
Hexachlorobutadiene	<0.0777	0.0777	0.0182			10/03/13 12:44	10/03/13 20:13	
sopropyl ether	<0.0777	0.0777	0.0777		<b>\$</b>	10/03/13 12:44	10/03/13 20:13	
sopropylbenzene	<0.0777	0.0777	0.0234	0 0		10/03/13 12:44	10/03/13 20:13	
Methyl tert-butyl ether	<0.0777	0.0777	0.0153		<u></u> .	10/03/13 12:44	10/03/13 20:13	
Methylene Chloride	<0.0777	0.0777	0.0715		1.tr	10/03/13 12:44	10/03/13 20:13	
n-Xylene & p-Xylene	0.0275 J	0.155	0.0261		₩.	10/03/13 12:44	10/03/13 20:13	
n-Butylbenzene	<0.0777	0.0777	0.0135		<u>.</u>	10/03/13 12:44	10/03/13 20:13	
N-Propylbenzene	<0.0777	0.0777	0.0124		<b>*</b>	10/03/13 12:44	10/03/13 20:13	
o-Xylene	0.0216 J	0.0777	0.0203		₩	10/03/13 12:44	10/03/13 20:13	
sec-Butylbenzene	<0.0777	0.0777	0.0135		<u>.</u> .	10/03/13 12:44	10/03/13 20:13	
Styrene	0.0149 J	0.0777	0.00777		<b>*</b>	10/03/13 12:44	10/03/13 20:13	
Tert-amyl methyl ether	<0.0777	0.0777	0.0398		*	10/03/13 12:44	10/03/13 20:13	
Tert-butyl ethyl ether	<0.0777	0.0777	0.0683			10/03/13 12:44	10/03/13 20:13	
ert-Butylbenzene	<0.0777	0.0777	0.0162		₩	10/03/13 12:44	10/03/13 20:13	
Tetrachloroethene	0.198	0.0777	0.0208	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
Гetrahydrofuran	<1.55	1.55	0.143	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	
Foluene	0.0152 J	0.0777	0.0117	ma/Ka	₩	10/03/13 12:44	10/03/13 20:13	

TestAmerica Buffalo

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14

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 12:15

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-8 (2-2.5)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-6

Matrix: Solid

Percent Solids: 86.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
trans-1,3-Dichloropropene	<0.0777		0.0777	0.0683	mg/Kg	<u> </u>	10/03/13 12:44	10/03/13 20:13	
Trichloroethene	<0.0777		0.0777	0.0342	mg/Kg		10/03/13 12:44	10/03/13 20:13	
Trichlorofluoromethane	<0.155		0.155	0.0147	mg/Kg	₽	10/03/13 12:44	10/03/13 20:13	
Vinyl chloride	<0.0777		0.0777	0.0190	mg/Kg	₩	10/03/13 12:44	10/03/13 20:13	
Dibromomethane	<0.0777		0.0777	0.0160	mg/Kg	<b>\$</b>	10/03/13 12:44	10/03/13 20:13	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	99		70 - 130				10/03/13 12:44	10/03/13 20:13	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				10/03/13 12:44	10/03/13 20:13	
4-Bromofluorobenzene (Surr)	101		70 - 130				10/03/13 12:44	10/03/13 20:13	
Method: 8260C - Volatile Organic C	Compounds (	(GC/MS) - D	)L						
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
Naphthalene	11.2		6.21	0.167	mg/Kg	<del></del>	10/03/13 12:44	10/04/13 17:02	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	99		70 - 130				10/03/13 12:44	10/04/13 17:02	
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				10/03/13 12:44	10/04/13 17:02	
4-Bromofluorobenzene (Surr)	103		70 - 130				10/03/13 12:44	10/04/13 17:02	
Method: MA VPH - Massachusetts	- Volatile Per	troleum Hy	drocarbons (G	C)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
C5-C8 Aliphatics (adjusted)	1.31	J	14.5	0.579	mg/Kg	<u></u>		10/07/13 11:24	5
C9-C12 Aliphatics (adjusted)	<14.5		14.5	0.579	mg/Kg	₽		10/07/13 11:24	5
Method: MAVPH - Massachusetts -			•	•		_			
Analyte	Result	Qualifier			Unit				
			RL	MDL		D	Prepared	Analyzed	
C5-C8 Aliphatics (unadjusted)	1.31	JB	14.9	0.596	mg/Kg	<del></del>	10/01/13 12:20	10/02/13 04:03	- 5
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics	1.53	J B J	14.9 14.9	0.596 0.596	mg/Kg mg/Kg	<del>*</del>	10/01/13 12:20 10/01/13 12:20	10/02/13 04:03 10/02/13 04:03	
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics		J B J	14.9	0.596 0.596	mg/Kg	<del></del>	10/01/13 12:20	10/02/13 04:03	
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted)	1.53	J B J	14.9 14.9	0.596 0.596	mg/Kg mg/Kg	<del>*</del>	10/01/13 12:20 10/01/13 12:20	10/02/13 04:03 10/02/13 04:03	5
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate	1.53 1.11	J B J	14.9 14.9 14.9	0.596 0.596	mg/Kg mg/Kg	<del>*</del>	10/01/13 12:20 10/01/13 12:20 10/01/13 12:20	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate 2,5-Dibromotoluene (fid)	1.53 1.11 %Recovery	J B J	14.9 14.9 14.9 <b>Limits</b>	0.596 0.596	mg/Kg mg/Kg	<del>*</del>	10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 Analyzed	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate C,5-Dibromotoluene (fid) C,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts	1.53 1.11  **Recovery 90 90 - Extractable	J B J Qualifier	14.9 14.9 14.9 • Limits 70 - 130 70 - 130	0.596 0.596 0.596	mg/Kg mg/Kg mg/Kg	₩ ₩ ₩	10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 <b>Analyzed</b> 10/02/13 04:03 10/02/13 04:03	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid) Method: MA-EPH - Massachusetts Analyte	1.53 1.11  **Recovery 90 90 - Extractable Result	J B J J	14.9 14.9 14.9 • Limits 70 - 130 70 - 130 • Hydrocarbons	0.596 0.596 0.596	mg/Kg mg/Kg mg/Kg	— <del></del>	10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 <b>Analyzed</b> 10/02/13 04:03 10/02/13 04:03	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid) Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted)	1.53 1.11  **Recovery 90 90 - Extractable Result 422	J B J Qualifier	14.9 14.9 14.9 	0.596 0.596 0.596 0.596 <b>G (GC)</b> MDL 2.25	mg/Kg mg/Kg mg/Kg	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 Prepared 09/30/13 08:34	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 <b>Analyzed</b> 10/02/13 04:03 10/02/13 04:03 <b>Analyzed</b> 10/02/13 14:51	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted)  Surrogate C,5-Dibromotoluene (fid) C,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted)	1.53 1.11  **Recovery 90 90 - Extractable Result 422 501	J B J J Qualifier Petroleum Qualifier	14.9 14.9 14.9 • Limits 70 - 130 70 - 130 1 Hydrocarbons RL 5.63 5.63	0.596 0.596 0.596 0.596 MDL 2.25 2.25	mg/Kg mg/Kg mg/Kg  Wnit mg/Kg mg/Kg		10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 Prepared 09/30/13 08:34 09/30/13 08:34	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 14:51 10/02/13 14:51	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted)  Surrogate 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted) C19-C36 Aliphatics	1.53 1.11  **Recovery 90 90 - Extractable Result 422	J B J J Qualifier Petroleum Qualifier	14.9 14.9 14.9 	0.596 0.596 0.596 0.596 MDL 2.25 2.25	mg/Kg mg/Kg mg/Kg	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 Prepared 09/30/13 08:34	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 <b>Analyzed</b> 10/02/13 04:03 10/02/13 04:03 <b>Analyzed</b> 10/02/13 14:51	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted) C19-C36 Aliphatics C9-C18 Aliphatics Analyte	1.53 1.11  %Recovery 90 90 - Extractable Result 422 501 5.01 Result	J B J J Qualifier Petroleum Qualifier	14.9 14.9 14.9 Limits 70 - 130 70 - 130 1 Hydrocarbons RL 5.63 5.63 5.63 RL	0.596 0.596 0.596 0.596 <b>MDL</b> 2.25 2.25 2.25	mg/Kg mg/Kg mg/Kg  Unit mg/Kg mg/Kg mg/Kg mg/Kg		10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 Prepared 09/30/13 08:34 09/30/13 08:34	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 14:51 10/02/13 14:51 Analyzed	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted)  Surrogate C,5-Dibromotoluene (fid) C,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted) C19-C36 Aliphatics C9-C18 Aliphatics Analyte	1.53 1.11 **Recovery 90 90 - Extractable Result 422 501 5.01	J B J J Qualifier  Petroleum Qualifier  J B	14.9 14.9 14.9 Limits 70 - 130 70 - 130 1 Hydrocarbons RL 5.63 5.63 5.63	0.596 0.596 0.596 0.596 <b>MDL</b> 2.25 2.25 2.25	mg/Kg mg/Kg mg/Kg  Unit mg/Kg mg/Kg		10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 Prepared 09/30/13 08:34 09/30/13 08:34	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 14:51 10/02/13 14:51 10/02/13 14:51	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted) C19-C36 Aliphatics C9-C18 Aliphatics Analyte C11-C22 Aromatics (Adjusted) Surrogate	1.53 1.11  %Recovery 90 90 - Extractable Result 422 501 5.01 Result 183 %Recovery	J B J J Qualifier  Petroleum Qualifier  J B Qualifier	14.9 14.9 14.9  Limits 70 - 130 70 - 130  Hydrocarbons RL 5.63 5.63 RL 5.79  Limits	0.596 0.596 0.596 0.596 <b>MDL</b> 2.25 2.25 2.25	mg/Kg mg/Kg mg/Kg  Unit mg/Kg mg/Kg mg/Kg mg/Kg		10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 09/30/13 08:34 09/30/13 08:34 Prepared	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 14:51 10/02/13 14:51 10/02/13 14:51 Analyzed 10/04/13 10:18 Analyzed	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted) Surrogate 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted) C19-C36 Aliphatics C9-C18 Aliphatics Analyte C11-C22 Aromatics (Adjusted) Surrogate 1-Chlorooctadecane	1.53 1.11  **Recovery 90 90 - Extractable Result 422 501 5.01 Result 183  **Recovery 49	J B J J Qualifier  Petroleum Qualifier  J B Qualifier	14.9 14.9 14.9 14.9  Limits 70 - 130 70 - 130  1 Hydrocarbons RL 5.63 5.63 5.63 RL 5.79  Limits 40 - 140	0.596 0.596 0.596 0.596 <b>MDL</b> 2.25 2.25 2.25	mg/Kg mg/Kg mg/Kg  Unit mg/Kg mg/Kg mg/Kg mg/Kg		10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 10/01/13 08:34 09/30/13 08:34 09/30/13 08:34 Prepared Prepared	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 14:51 10/02/13 14:51 10/02/13 14:51 Analyzed 10/04/13 10:18 Analyzed 10/02/13 14:51	Dil Fa
C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics C9-C12 Aliphatics (unadjusted)  Surrogate 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid)  Method: MA-EPH - Massachusetts Analyte C11-C22 Aromatics (unadjusted) C19-C36 Aliphatics C9-C18 Aliphatics Analyte C11-C22 Aromatics (Adjusted)  Surrogate 1-Chlorooctadecane 2-Bromonaphthalene 2-Fluorobiphenyl	1.53 1.11  %Recovery 90 90 - Extractable Result 422 501 5.01 Result 183 %Recovery	J B J J Qualifier  Petroleum Qualifier  J B Qualifier	14.9 14.9 14.9  Limits 70 - 130 70 - 130  Hydrocarbons RL 5.63 5.63 RL 5.79  Limits	0.596 0.596 0.596 0.596 <b>MDL</b> 2.25 2.25 2.25	mg/Kg mg/Kg mg/Kg  Unit mg/Kg mg/Kg mg/Kg mg/Kg		10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 10/01/13 12:20 10/01/13 12:20 10/01/13 12:20 Prepared 09/30/13 08:34 09/30/13 08:34 Prepared	10/02/13 04:03 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 04:03 10/02/13 04:03 Analyzed 10/02/13 14:51 10/02/13 14:51 10/02/13 14:51 Analyzed 10/04/13 10:18 Analyzed	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-8 (2.5-3)

Date Collected: 09/25/13 12:20 Date Received: 09/28/13 01:00 Lab Sample ID: 480-46783-7

Matrix: Solid

Percent Solids: 71.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0454		0.0454	0.0289	mg/Kg	<del>\tilde{\pi}</del>	10/01/13 09:24	10/04/13 16:51	1
PCB-1221	< 0.0454		0.0454	0.0220	mg/Kg	₩	10/01/13 09:24	10/04/13 16:51	1
PCB-1232	< 0.0454		0.0454	0.0192	mg/Kg	₩	10/01/13 09:24	10/04/13 16:51	1
PCB-1242	<0.0454		0.0454	0.0179	mg/Kg	₽	10/01/13 09:24	10/04/13 16:51	1
PCB-1248	<0.0454		0.0454	0.0234	mg/Kg	₩	10/01/13 09:24	10/04/13 16:51	1
PCB-1254	< 0.0454		0.0454	0.0234	mg/Kg	₩	10/01/13 09:24	10/04/13 16:51	1
PCB-1260	0.126		0.0454	0.0234	mg/Kg	₽	10/01/13 09:24	10/04/13 16:51	1
PCB-1262	< 0.0454		0.0454	0.0371	mg/Kg	₩	10/01/13 09:24	10/04/13 16:51	1
PCB-1268	<0.0454		0.0454	0.0192	mg/Kg	₽	10/01/13 09:24	10/04/13 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		30 - 150				10/01/13 09:24	10/04/13 16:51	1
Tetrachloro-m-xylene	67		30 - 150				10/01/13 09:24	10/04/13 16:51	1
DCB Decachlorobiphenyl	141		30 - 150				10/01/13 09:24	10/04/13 16:51	1
DCB Decachlorobiphenyl	77		30 - 150				10/01/13 09:24	10/04/13 16:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.642		0.642	0.257	mg/Kg	<u> </u>	09/30/13 14:10	10/01/13 20:03	1
Arsenic	11.1		1.28	0.513	mg/Kg	₩	09/30/13 14:10	10/01/13 20:03	1
Barium	41.8		0.642	0.141	mg/Kg	₽	09/30/13 14:10	10/01/13 20:03	1
Beryllium	0.499		0.257	0.0359	mg/Kg	₽	09/30/13 14:10	10/01/13 20:03	1
Cadmium	2.73	<b>A</b>	0.257	0.0385	mg/Kg	₩	09/30/13 14:10	10/01/13 20:03	1
Chromium	32.6		0.642	0.257	mg/Kg	₽	09/30/13 14:10	10/01/13 20:03	1
Nickel	34.4		1.28	0.295	mg/Kg	₽	09/30/13 14:10	10/01/13 20:03	1
Thallium	<1.28		1.28	0.385	mg/Kg	₩	09/30/13 14:10	10/01/13 20:03	1
Vanadium	14.2		0.642	0.141	mg/Kg	₽	09/30/13 14:10	10/01/13 20:03	1
Zinc	157	В	3.21	0.196	mg/Kg	₩	09/30/13 14:10	10/01/13 20:03	1
Lead	62.1		0.642	0.308	mg/Kg	₩	09/30/13 14:10	10/01/13 20:03	1
Selenium	1.25	<b>A</b>	0.642	0.513	mg/Kg	₩	09/30/13 14:10	10/01/13 20:03	1
Antimony	0.613	J ^	0.642	0.513	mg/Kg	₩	09/30/13 14:10	10/01/13 20:03	

Method: /4/1A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0568	J	0.137	0.0111	mg/Kg	<del></del>	09/30/13 10:40	09/30/13 12:10	1

Client Sample ID: WCSB-8 (7-8)

Date Collected: 09/25/13 12:30

Lab Sample ID: 480-46783-8

Matrix: Solid

Date Received: 09/28/13 01:00 Matrix: Solid

Percent Solids: 68.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00307		0.00307	0.000613	mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
1,1,1-Trichloroethane	< 0.00307		0.00307	0.000445	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,1,2,2-Tetrachloroethane	< 0.00307		0.00307	0.000995	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,1,2-Trichloroethane	<0.00307		0.00307	0.000797	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,1-Dichloroethane	< 0.00307		0.00307	0.000748	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,1-Dichloroethene	< 0.00307		0.00307	0.000751	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,1-Dichloropropene	<0.00307		0.00307	0.000871	mg/Kg	\$	10/01/13 11:37	10/01/13 19:21	1
1,2,3-Trichlorobenzene	< 0.00307		0.00307	0.000651	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1

TestAmerica Buffalo

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1 1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 12:30

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-8 (7-8)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-8

Matrix: Solid

Percent Solids: 68.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.00307		0.00307	0.000624	mg/Kg	<u> </u>	10/01/13 11:37	10/01/13 19:21	1
1,2,4-Trichlorobenzene	<0.00307		0.00307	0.000373	mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
1,2,4-Trimethylbenzene	< 0.00307		0.00307	0.00118	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,2-Dibromo-3-Chloropropane	< 0.0307		0.0307	0.00307	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,2-Dichlorobenzene	<0.00307		0.00307	0.000479	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,2-Dichloroethane	< 0.00307		0.00307	0.000308	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,2-Dichloropropane	< 0.00307		0.00307	0.00307	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,3,5-Trimethylbenzene	<0.00307		0.00307	0.000395	mg/Kg	₩.	10/01/13 11:37	10/01/13 19:21	1
1,3-Dichlorobenzene	< 0.00307		0.00307	0.000315	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,3-Dichloropropane	< 0.00307		0.00307	0.000368	mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
1,4-Dichlorobenzene	<0.00307		0.00307	0.000858	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,4-Dioxane	<0.307		0.307	0.0296	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
2,2-Dichloropropane	< 0.00307		0.00307	0.00104	mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
2-Butanone (MEK)	0.0403		0.0307	0.00224	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
2-Chlorotoluene	< 0.00307		0.00307	0.000402	mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
2-Hexanone	< 0.0307		0.0307	0.00307	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
4-Chlorotoluene	<0.00307		0.00307	0.000724	mg/Kg		10/01/13 11:37	10/01/13 19:21	1
4-Isopropyltoluene	< 0.00307		0.00307	0.000492	mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
4-Methyl-2-pentanone (MIBK)	<0.0307		0.0307	0.00201	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Acetone	0.167	J	0.307	0.00516	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Benzene	0.00102	J	0.00307	0.000300	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1

1,2,4 Thirtethylbenzene	10.00007	0.00007	0.00110 1119/119		10/01/10 11.07	10/01/10 10.21	•
1,2-Dibromo-3-Chloropropane	<0.0307	0.0307	0.00307 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,2-Dichlorobenzene	<0.00307	0.00307	0.000479 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,2-Dichloroethane	<0.00307	0.00307	0.000308 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
1,2-Dichloropropane	<0.00307	0.00307	0.00307 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
1,3,5-Trimethylbenzene	<0.00307	0.00307	0.000395 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
1,3-Dichlorobenzene	<0.00307	0.00307	0.000315 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
1,3-Dichloropropane	<0.00307	0.00307	0.000368 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
1,4-Dichlorobenzene	<0.00307	0.00307	0.000858 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
1,4-Dioxane	<0.307	0.307	0.0296 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
2,2-Dichloropropane	<0.00307	0.00307	0.00104 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
2-Butanone (MEK)	0.0403	0.0307	0.00224 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
2-Chlorotoluene	<0.00307	0.00307	0.000402 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
2-Hexanone	<0.0307	0.0307	0.00307 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
4-Chlorotoluene	<0.00307	0.00307	0.000724 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
4-Isopropyltoluene	<0.00307	0.00307	0.000492 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
4-Methyl-2-pentanone (MIBK)	<0.0307	0.0307	0.00201 mg/Kg	<b>#</b>	10/01/13 11:37	10/01/13 19:21	1
Acetone	0.167 J	0.307	0.00516 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Benzene	0.00102 J	0.00307	0.000300 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Bromobenzene	<0.00307	0.00307	0.00108 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
Bromoform	<0.00307	0.00307	0.00307 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Bromomethane	<0.00613	0.00613	0.000552 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
Carbon disulfide	0.0241	0.00307	0.00307 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
Carbon tetrachloride	<0.00307	0.00307	0.000594 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Chlorobenzene	<0.00307	0.00307	0.000809 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Chlorobromomethane	<0.00307	0.00307	0.000443 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
Chlorodibromomethane	<0.00307	0.00307	0.000785 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Chloroethane	<0.00613	0.00613	0.00139 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
Chloroform	<0.00307	0.00307	0.000379 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Chloromethane	<0.00613 *	0.00613	0.000370 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
cis-1,2-Dichloroethene	<0.00307	0.00307	0.000785 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
cis-1,3-Dichloropropene	<0.00307	0.00307	0.000883 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Dichlorobromomethane	<0.00307	0.00307	0.000822 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Dichlorodifluoromethane	<0.00613	0.00613	0.000506 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Ethyl ether	<0.00307	0.00307	0.00258 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
Ethylbenzene	<0.00307	0.00307	0.000423 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Ethylene Dibromide	<0.00307	0.00307	0.000787 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
Hexachlorobutadiene	<0.00307	0.00307	0.000719 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Isopropyl ether	<0.00307	0.00307	0.00307 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Isopropylbenzene	<0.00307	0.00307	0.000925 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Methyl tert-butyl ether	<0.00307	0.00307	0.000602 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Methylene Chloride	<0.00307	0.00307	0.00282 mg/Kg	*	10/01/13 11:37	10/01/13 19:21	1
m-Xylene & p-Xylene	<0.00613	0.00613	0.00103 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Naphthalene	0.00497 J	0.0307	0.000822 mg/Kg	<b>#</b>	10/01/13 11:37	10/01/13 19:21	1
n-Butylbenzene	<0.00307	0.00307	0.000533 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
N-Propylbenzene	<0.00307	0.00307	0.000491 mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
o-Xylene	<0.00307	0.00307	0.000801 mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 12:30

DCB Decachlorobiphenyl

Client Sample ID: WCSB-8 (7-8)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-8

Matrix: Solid

Percent Solids: 68.9

Date Received: 09/28/13 01:00			
Method: 8260C - Volatile Org	anic Compounds	(GC/MS) (Co	ntinued)
Analyte	Result	Qualifier	RL
sec-Butylbenzene	<0.00307		0.00307

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.00307		0.00307	0.000533	mg/Kg	<u> </u>	10/01/13 11:37	10/01/13 19:21	1
Styrene	<0.00307		0.00307	0.000307	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Tert-amyl methyl ether	< 0.00307		0.00307	0.00157	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Tert-butyl ethyl ether	<0.00307		0.00307	0.00270	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
tert-Butylbenzene	<0.00307		0.00307	0.000638	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Tetrachloroethene	< 0.00307	*	0.00307	0.000823	mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
Tetrahydrofuran	<0.0613		0.0613	0.00564	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Toluene	< 0.00307		0.00307	0.000464	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
trans-1,2-Dichloroethene	< 0.00307		0.00307	0.000633	mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
trans-1,3-Dichloropropene	<0.00307		0.00307	0.00270	mg/Kg		10/01/13 11:37	10/01/13 19:21	1
Trichloroethene	< 0.00307		0.00307	0.00135	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Trichlorofluoromethane	<0.00613		0.00613	0.000580	mg/Kg	₩	10/01/13 11:37	10/01/13 19:21	1
Vinyl chloride	<0.00307		0.00307	0.000748	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Dibromomethane	<0.00307		0.00307	0.000632	mg/Kg	₽	10/01/13 11:37	10/01/13 19:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130				10/01/13 11:37	10/01/13 19:21	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		10/01/13 11:37	10/01/13 19:21	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130	1	10/01/13 11:37	10/01/13 19:21	1
4-Bromofluorobenzene (Surr)	115		70 - 130	1	10/01/13 11:37	10/01/13 19:21	1

Method: MA VPH - Massachusett	s - Volatile Petroleum Hyd	rocarbons (G0	C)				
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.451	0.363	0.0145 mg/Kg	₩		10/07/13 11:24	1
C9-C12 Aliphatics (adjusted)	0.733	0.363	0.0145 mg/Kg	₩		10/07/13 11:24	1

Method: MAVPH - Massachusetts	- Volatile Pet	roleum Hyd	frocarbons (GC	;)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.347	В	0.347	0.0139	mg/Kg	<del></del>	10/01/13 12:20	10/03/13 12:28	1
C9-C10 Aromatics	0.291	J	0.347	0.0139	mg/Kg	₩	10/01/13 12:20	10/03/13 12:28	1
C9-C12 Aliphatics (unadjusted)	0.813	В	0.347	0.0139	mg/Kg	≎	10/01/13 12:20	10/03/13 12:28	1
Surrogate  2,5-Dibromotoluene (fid)	%Recovery	Qualifier	70 - 130				Prepared 10/01/13 12:20	Analyzed 10/03/13 12:28	Dil Fac

2,5-Dibromotoluene (pid)	84	70 - 130				10/01/13 12:20	10/03/13 12:28	1
Method: 8082 - Polychlorinated	Biphenyls (GC/EC	D)						
Analyte	Result Qu	ıalifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0475	0.0475	0.0302	mg/Kg	<del>-</del>	10/01/13 09:24	10/03/13 21:23	1
PCB-1221	<0.0475	0.0475	0.0230	mg/Kg	₩	10/01/13 09:24	10/03/13 21:23	1
PCB-1232	< 0.0475	0.0475	0.0201	mg/Kg	₩	10/01/13 09:24	10/03/13 21:23	1
PCB-1242	<0.0475	0.0475	0.0187	mg/Kg	φ.	10/01/13 09:24	10/03/13 21:23	1
PCB-1248	< 0.0475	0.0475	0.0244	mg/Kg	₩	10/01/13 09:24	10/03/13 21:23	1
PCB-1254	< 0.0475	0.0475	0.0244	mg/Kg	₩	10/01/13 09:24	10/03/13 21:23	1
PCB-1260	<0.0475	0.0475	0.0244	mg/Kg		10/01/13 09:24	10/03/13 21:23	1
PCB-1262	< 0.0475	0.0475	0.0388	mg/Kg	₩	10/01/13 09:24	10/03/13 21:23	1
PCB-1268	<0.0475	0.0475	0.0201	mg/Kg	₩	10/01/13 09:24	10/03/13 21:23	1
Surrogate	%Recovery Qu	ualifier Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68	30 - 150				10/01/13 09:24	10/03/13 21:23	1
Tetrachloro-m-xylene	67	30 - 150				10/01/13 09:24	10/03/13 21:23	1

TestAmerica Buffalo

10/03/13 21:23

10/01/13 09:24

30 - 150

58

4

6

8

10

12

13

14

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-8

Matrix: Solid

Percent Solids: 68.9

Client Sample ID: WCSB-8 (7-8)

Date Collected: 09/25/13 12:30 Date Received: 09/28/13 01:00

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	64		30 - 150	10/01/13 09:24	10/03/13 21:23	1

			30 - 130				10/01/13 09.24	10/03/13 21.23	
Method: MA-EPH - Massachusett	s - Extractable	e Petroleum	Hydrocarbons	(GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	21.3		6.76	2.70	mg/Kg	₩	09/30/13 08:34	10/02/13 15:20	
C19-C36 Aliphatics	53.8		6.76	2.70	mg/Kg	₽	09/30/13 08:34	10/02/13 15:20	
C9-C18 Aliphatics	4.29	JB	6.76	2.70	mg/Kg	₩	09/30/13 08:34	10/02/13 15:20	
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	18.2		7.26	7.26	mg/Kg	<del>\</del>		10/04/13 10:18	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctadecane	69		40 - 140				09/30/13 08:34	10/02/13 15:20	
2-Bromonaphthalene	104		40 - 140				09/30/13 08:34	10/02/13 15:20	1
2-Fluorobiphenyl	117		40 - 140				09/30/13 08:34	10/02/13 15:20	
o-Terphenyl	74		40 - 140				09/30/13 08:34	10/02/13 15:20	

Client Sample ID: WCSB-6 (2.5-3)

Date Collected: 09/25/13 14:00 Date Received: 09/28/13 01:00 Lab Sample ID: 480-46783-9

Matrix: Solid
Percent Solids: 96.1

1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0342		0.0342	0.0218	mg/Kg	₽	10/01/13 09:24	10/06/13 16:32	1
PCB-1221	<0.0342		0.0342	0.0166	mg/Kg	₽	10/01/13 09:24	10/06/13 16:32	1
PCB-1232	<0.0342		0.0342	0.0145	mg/Kg	₽	10/01/13 09:24	10/06/13 16:32	1
PCB-1242	<0.0342		0.0342	0.0135	mg/Kg		10/01/13 09:24	10/06/13 16:32	1
PCB-1248	<0.0342		0.0342	0.0176	mg/Kg	₩	10/01/13 09:24	10/06/13 16:32	1
PCB-1254	0.121		0.0342	0.0176	mg/Kg	₽	10/01/13 09:24	10/06/13 16:32	1
PCB-1260	<0.0342		0.0342	0.0176	mg/Kg		10/01/13 09:24	10/06/13 16:32	1
PCB-1262	<0.0342		0.0342	0.0280	mg/Kg	₩	10/01/13 09:24	10/06/13 16:32	1
PCB-1268	<0.0342		0.0342	0.0145	mg/Kg	₩	10/01/13 09:24	10/06/13 16:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		30 - 150	10/01/13 09:24	10/06/13 16:32	1
Tetrachloro-m-xylene	73		30 - 150	10/01/13 09:24	10/06/13 16:32	1
DCB Decachlorobiphenyl	69		30 - 150	10/01/13 09:24	10/06/13 16:32	1
DCB Decachlorobiphenyl	84		30 - 150	10/01/13 09:24	10/06/13 16:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.494		0.494	0.197	mg/Kg	₩	09/30/13 14:10	10/01/13 20:05	1
Arsenic	2.81		0.987	0.395	mg/Kg	₩	09/30/13 14:10	10/01/13 20:05	1
Barium	39.5		0.494	0.109	mg/Kg	₽	09/30/13 14:10	10/01/13 20:05	1
Beryllium	0.424		0.197	0.0276	mg/Kg	*	09/30/13 14:10	10/01/13 20:05	1
Cadmium	1.75	^	0.197	0.0296	mg/Kg	₽	09/30/13 14:10	10/01/13 20:05	1
Chromium	18.4		0.494	0.197	mg/Kg	₽	09/30/13 14:10	10/01/13 20:05	1
Nickel	28.1		0.987	0.227	mg/Kg	\$	09/30/13 14:10	10/01/13 20:05	1
Thallium	<0.987		0.987	0.296	mg/Kg	₩	09/30/13 14:10	10/01/13 20:05	1
Vanadium	13.0		0.494	0.109	mg/Kg	₽	09/30/13 14:10	10/01/13 20:05	1
Zinc	645	<b>B</b>	2.47	0.151	mg/Kg		09/30/13 14:10	10/01/13 20:05	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Client Sample ID: WCSB-6 (2.5-3)

Date Collected: 09/25/13 14:00 Date Received: 09/28/13 01:00

Mercury

Lab Sample ID: 480-46783-9

₩

09/30/13 10:40

Matrix: Solid Percent Solids: 96.1

09/30/13 12:12

Method: 6010 - Metals (ICP) (Continu	ed)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	145		0.494	0.237	mg/Kg	<del>*</del>	09/30/13 14:10	10/01/13 20:05	1
Selenium	< 0.494	٨	0.494	0.395	mg/Kg	₩	09/30/13 14:10	10/01/13 20:05	1
Antimony	0.413	J ^	0.494	0.395	mg/Kg	⇔	09/30/13 14:10	10/01/13 20:05	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: WCSB-6 (4-5) Lab Sample ID: 480-46783-10

0.0996

0.123

0.00807 mg/Kg

Date Collected: 09/25/13 14:05 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 81.2

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00283	0.00283	0.000566	mg/Kg	<u> </u>	10/01/13 11:37	10/01/13 19:47	1
1,1,1-Trichloroethane	<0.00283	0.00283	0.000411	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
1,1,2,2-Tetrachloroethane	<0.00283	0.00283	0.000918	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
1,1,2-Trichloroethane	<0.00283	0.00283	0.000736	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,1-Dichloroethane	<0.00283	0.00283	0.000690	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,1-Dichloroethene	<0.00283	0.00283	0.000693	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
1,1-Dichloropropene	<0.00283	0.00283	0.000804	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,2,3-Trichlorobenzene	<0.00283	0.00283	0.000601	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,2,3-Trichloropropane	<0.00283	0.00283	0.000576	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
1,2,4-Trichlorobenzene	<0.00283	0.00283	0.000344	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,2,4-Trimethylbenzene	<0.00283	0.00283	0.00109	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,2-Dibromo-3-Chloropropane	<0.0283	0.0283	0.00283	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,2-Dichlorobenzene	<0.00283	0.00283	0.000443	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,2-Dichloroethane	<0.00283	0.00283	0.000284	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,2-Dichloropropane	<0.00283	0.00283	0.00283	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,3,5-Trimethylbenzene	<0.00283	0.00283	0.000364	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,3-Dichlorobenzene	<0.00283	0.00283	0.000291	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,3-Dichloropropane	<0.00283	0.00283	0.000340	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,4-Dichlorobenzene	<0.00283	0.00283	0.000792	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
1,4-Dioxane	<0.283	0.283	0.0273	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
2,2-Dichloropropane	<0.00283	0.00283	0.000962	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
2-Butanone (MEK)	<0.0283	0.0283	0.00207	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
2-Chlorotoluene	<0.00283	0.00283	0.000371	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
2-Hexanone	<0.0283	0.0283	0.00283	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
4-Chlorotoluene	<0.00283	0.00283	0.000668	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
4-Isopropyltoluene	<0.00283	0.00283	0.000454	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
4-Methyl-2-pentanone (MIBK)	<0.0283	0.0283	0.00186	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Acetone	0.0219 J	0.283	0.00477	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Benzene	<0.00283	0.00283	0.000277	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Bromobenzene	<0.00283	0.00283	0.000996	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Bromoform	<0.00283	0.00283	0.00283	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Bromomethane	<0.00566	0.00566	0.000509	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Carbon disulfide	<0.00283	0.00283	0.00283	mg/Kg	☼	10/01/13 11:37	10/01/13 19:47	1
Carbon tetrachloride	<0.00283	0.00283	0.000548	mg/Kg	₩.	10/01/13 11:37	10/01/13 19:47	1
Chlorobenzene	<0.00283	0.00283	0.000747	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Chlorobromomethane	<0.00283	0.00283	0.000409	ma/Ka	₩	10/01/13 11:37	10/01/13 19:47	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-6 (4-5)

Date Collected: 09/25/13 14:05 Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-10

Matrix: Solid

Percent Solids: 81.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	<0.00283		0.00283	0.000724	mg/Kg	<del>-</del>	10/01/13 11:37	10/01/13 19:47	1
Chloroethane	<0.00566		0.00566	0.00128	mg/Kg	φ.	10/01/13 11:37	10/01/13 19:47	1
Chloroform	<0.00283		0.00283	0.000350	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Chloromethane	<0.00566	*	0.00566	0.000342	mg/Kg	<b>\$</b>	10/01/13 11:37	10/01/13 19:47	1
cis-1,2-Dichloroethene	<0.00283		0.00283	0.000724	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
cis-1,3-Dichloropropene	<0.00283		0.00283	0.000815	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Dichlorobromomethane	<0.00283		0.00283	0.000758	mg/Kg	φ.	10/01/13 11:37	10/01/13 19:47	1
Dichlorodifluoromethane	< 0.00566		0.00566	0.000467	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Ethyl ether	<0.00283		0.00283	0.00238	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Ethylbenzene	<0.00283		0.00283	0.000391	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Ethylene Dibromide	<0.00283		0.00283	0.000727	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Hexachlorobutadiene	<0.00283		0.00283	0.000663	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Isopropyl ether	<0.00283		0.00283	0.00283	mg/Kg	₽	10/01/13 11:37	10/01/13 19:47	1
Isopropylbenzene	<0.00283		0.00283	0.000853	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Methyl tert-butyl ether	<0.00283		0.00283	0.000556	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Methylene Chloride	<0.00283		0.00283	0.00260	mg/Kg		10/01/13 11:37	10/01/13 19:47	1
m-Xylene & p-Xylene	< 0.00566		0.00566	0.000951	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Naphthalene	<0.0283		0.0283	0.000758	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
n-Butylbenzene	<0.00283		0.00283	0.000492	mg/Kg		10/01/13 11:37	10/01/13 19:47	1
N-Propylbenzene	<0.00283		0.00283	0.000453	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
o-Xylene	<0.00283		0.00283	0.000739	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
sec-Butylbenzene	<0.00283		0.00283	0.000492	mg/Kg		10/01/13 11:37	10/01/13 19:47	1
Styrene	<0.00283		0.00283	0.000283	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Tert-amyl methyl ether	<0.00283		0.00283	0.00145	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Tert-butyl ethyl ether	<0.00283		0.00283	0.00249	mg/Kg		10/01/13 11:37	10/01/13 19:47	1
tert-Butylbenzene	<0.00283		0.00283	0.000589	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Tetrachloroethene	<0.00283	*	0.00283	0.000759	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Tetrahydrofuran	<0.0566		0.0566	0.00521	mg/Kg	₩.	10/01/13 11:37	10/01/13 19:47	1
Toluene	<0.00283		0.00283	0.000428	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
trans-1,2-Dichloroethene	<0.00283		0.00283	0.000584	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
trans-1,3-Dichloropropene	<0.00283		0.00283	0.00249	mg/Kg		10/01/13 11:37	10/01/13 19:47	1
Trichloroethene	<0.00283		0.00283	0.00125	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Trichlorofluoromethane	<0.00566		0.00566	0.000535	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Vinyl chloride	<0.00283		0.00283	0.000690	mg/Kg		10/01/13 11:37	10/01/13 19:47	1
Dibromomethane	<0.00283		0.00283	0.000583	mg/Kg	₩	10/01/13 11:37	10/01/13 19:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		70 - 130				10/01/13 11:37	10/01/13 19:47	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				10/01/13 11:37	10/01/13 19:47	1
4-Bromofluorobenzene (Surr)	115		70 - 130				10/01/13 11:37	10/01/13 19:47	1

Client Sample ID: WCSB-6 (8-9)

Date Collected: 09/25/13 14:15

Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-11 **Matrix: Solid** 

Percent Solids: 78.8

Method: 8260C - Volatile Organic Compounds (GC/MS)										
	Analyte	Result Qu	ualifier R	L MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	1,1,1,2-Tetrachloroethane	<0.00262	0.0026	2 0.000525	mg/Kg	<del>\$</del>	10/01/13 11:37	10/01/13 20:12	1	
	1,1,1-Trichloroethane	<0.00262	0.0026	2 0.000381	mg/Kg	₩	10/01/13 11:37	10/01/13 20:12	1	
	1,1,2,2-Tetrachloroethane	<0.00262	0.0026	2 0.000851	mg/Kg	₩	10/01/13 11:37	10/01/13 20:12	1	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-11

Matrix: Solid

Percent Solids: 78.8

Client Sample ID: WCSB-6 (8-9)	
Date Collected: 09/25/13 14:15	

Date Received: 09/28/13 01:00

Method: 8260C - Volatile Organ	ic Compounds (GC/N	IS) (Continued)						
Analyte	Result Qualit	, ,	MDL	Unit	D	Prepared	Analyzed	Dil Fa
,1,2-Trichloroethane	<0.00262	0.00262	0.000682	mg/Kg	<del>\</del>	10/01/13 11:37	10/01/13 20:12	
I,1-Dichloroethane	<0.00262	0.00262	0.000640	mg/Kg	φ.	10/01/13 11:37	10/01/13 20:12	
,1-Dichloroethene	<0.00262	0.00262	0.000642	mg/Kg	₩	10/01/13 11:37	10/01/13 20:12	
,1-Dichloropropene	<0.00262	0.00262	0.000745	mg/Kg	φ	10/01/13 11:37	10/01/13 20:12	
1,2,3-Trichlorobenzene	<0.00262	0.00262	0.000557	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	
,2,3-Trichloropropane	<0.00262	0.00262	0.000534	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	
I,2,4-Trichlorobenzene	<0.00262	0.00262	0.000319	mg/Kg	φ	10/01/13 11:37	10/01/13 20:12	
I,2,4-Trimethylbenzene	<0.00262	0.00262	0.00101	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	
1,2-Dibromo-3-Chloropropane	<0.0262	0.0262	0.00262	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	
I,2-Dichlorobenzene	<0.00262	0.00262	0.000410	mg/Kg	\$	10/01/13 11:37	10/01/13 20:12	
1,2-Dichloroethane	<0.00262	0.00262	0.000263	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	
,2-Dichloropropane	<0.00262	0.00262	0.00262	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	
1,3,5-Trimethylbenzene	<0.00262	0.00262	0.000338	mg/Kg	φ.	10/01/13 11:37	10/01/13 20:12	
1,3-Dichlorobenzene	<0.00262	0.00262	0.000270	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	
,3-Dichloropropane	<0.00262	0.00262	0.000315		₽	10/01/13 11:37	10/01/13 20:12	
I,4-Dichlorobenzene	<0.00262	0.00262	0.000735	mg/Kg		10/01/13 11:37	10/01/13 20:12	
I,4-Dioxane	<0.262	0.262	0.0253		₽	10/01/13 11:37	10/01/13 20:12	
2,2-Dichloropropane	<0.00262	0.00262	0.000892		₽	10/01/13 11:37	10/01/13 20:12	
2-Butanone (MEK)	0.0204 J	0.0262	0.00192			10/01/13 11:37	10/01/13 20:12	
2-Chlorotoluene	<0.00262	0.00262	0.000344		₽	10/01/13 11:37	10/01/13 20:12	
2-Hexanone	<0.0262	0.0262	0.00262		₽	10/01/13 11:37	10/01/13 20:12	
-Chlorotoluene	<0.00262	0.00262	0.000619			10/01/13 11:37	10/01/13 20:12	
I-Isopropyltoluene	<0.00262	0.00262	0.000421		₽	10/01/13 11:37	10/01/13 20:12	
I-Methyl-2-pentanone (MIBK)	<0.0262	0.0262	0.00172		₽	10/01/13 11:37	10/01/13 20:12	
Acetone	0.0704 J	0.262	0.00442			10/01/13 11:37	10/01/13 20:12	
Benzene	0.00268	0.00262	0.000257		₽	10/01/13 11:37	10/01/13 20:12	
Bromobenzene	<0.00262	0.00262	0.000924		₽	10/01/13 11:37	10/01/13 20:12	
Bromoform	<0.00262	0.00262	0.00262			10/01/13 11:37	10/01/13 20:12	
Bromomethane	<0.00202	0.00525	0.00202		₩	10/01/13 11:37	10/01/13 20:12	
Carbon disulfide	0.00563	0.00262	0.00262		₽	10/01/13 11:37	10/01/13 20:12	
Carbon tetrachloride	<0.00363	0.00262	0.000508			10/01/13 11:37	10/01/13 20:12	
Chlorobenzene	<0.00262	0.00262	0.000508		₩	10/01/13 11:37	10/01/13 20:12	
Chlorobromomethane	<0.00262	0.00262	0.000379		₩	10/01/13 11:37	10/01/13 20:12	
Chlorodibromomethane	<0.00262	0.00262	0.000379			10/01/13 11:37	10/01/13 20:12	
	<0.00202	0.00202	0.000072		₩		10/01/13 20:12	
Chloroethane Chloroform	<0.00525			0 0	₩	10/01/13 11:37		
		0.00262	0.000324			10/01/13 11:37 10/01/13 11:37	10/01/13 20:12	
Chloromethane	<0.00525 *	0.00525			₩		10/01/13 20:12	
cis-1,2-Dichloroethene	<0.00262	0.00262	0.000672		₩	10/01/13 11:37	10/01/13 20:12	
sis-1,3-Dichloropropene	<0.00262	0.00262	0.000756			10/01/13 11:37	10/01/13 20:12	
Dichlorobromomethane	<0.00262	0.00262	0.000703		<b>‡</b>	10/01/13 11:37	10/01/13 20:12	
Dichlorodifluoromethane	<0.00525	0.00525	0.000433		₽	10/01/13 11:37	10/01/13 20:12	
Ethyl ether	<0.00262	0.00262	0.00220			10/01/13 11:37	10/01/13 20:12	
Ethylbenzene	0.00115 J	0.00262	0.000362		₩	10/01/13 11:37	10/01/13 20:12	
Ethylene Dibromide	<0.00262	0.00262	0.000674		<b>‡</b>	10/01/13 11:37	10/01/13 20:12	
Hexachlorobutadiene	<0.00262	0.00262	0.000615		· · · · · ½ · ·	10/01/13 11:37	10/01/13 20:12	
sopropyl ether	<0.00262	0.00262	0.00262			10/01/13 11:37	10/01/13 20:12	
sopropylbenzene	<0.00262	0.00262	0.000791			10/01/13 11:37	10/01/13 20:12	
Methyl tert-butyl ether Methylene Chloride	<0.00262	0.00262	0.000515	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 14:15

Date Received: 09/28/13 01:00

C5-C8 Aliphatics (unadjusted)

Client Sample ID: WCSB-6 (8-9)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-11

Matrix: Solid Percent Solids: 78.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00525		0.00525	0.000882	mg/Kg	<del>-</del>	10/01/13 11:37	10/01/13 20:12	1
Naphthalene	<0.0262		0.0262	0.000703	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
n-Butylbenzene	<0.00262		0.00262	0.000457	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
N-Propylbenzene	<0.00262		0.00262	0.000420	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
o-Xylene	<0.00262		0.00262	0.000685	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
sec-Butylbenzene	<0.00262		0.00262	0.000457	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Styrene	<0.00262		0.00262	0.000262	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Tert-amyl methyl ether	<0.00262		0.00262	0.00134	mg/Kg	₩	10/01/13 11:37	10/01/13 20:12	1
Tert-butyl ethyl ether	<0.00262		0.00262	0.00231	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
tert-Butylbenzene	<0.00262		0.00262	0.000546	mg/Kg	₩	10/01/13 11:37	10/01/13 20:12	1
Tetrachloroethene	<0.00262	*	0.00262	0.000704	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Tetrahydrofuran	<0.0525		0.0525	0.00483	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Toluene	0.00326		0.00262	0.000397	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
trans-1,2-Dichloroethene	<0.00262		0.00262	0.000542	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
trans-1,3-Dichloropropene	<0.00262		0.00262	0.00231	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Trichloroethene	<0.00262		0.00262	0.00115	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Trichlorofluoromethane	<0.00525		0.00525	0.000496	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Vinyl chloride	<0.00262		0.00262	0.000640	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Dibromomethane	<0.00262		0.00262	0.000540	mg/Kg	₽	10/01/13 11:37	10/01/13 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130				10/01/13 11:37	10/01/13 20:12	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				10/01/13 11:37	10/01/13 20:12	1
4-Bromofluorobenzene (Surr)	112		70 - 130				10/01/13 11:37	10/01/13 20:12	1

Method: MA VPH - Massachusett	s - Volatile Pe	troleum Hydr	ocarbons (G0	<b>C</b> )					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	2.27		0.317	0.0127	mg/Kg	<del>\</del>		10/07/13 11:24	1
C9-C12 Aliphatics (adjusted)	0.0351	J	0.317	0.0127	mg/Kg	₽		10/07/13 11:24	1
Method: MAVPH - Massachusetts	s - Volatile Pet	roleum Hydro	ocarbons (GC	;)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

C9-C10 Aromatics	0.251	J	0.261	0.0104 mg/Kg	₽	10/01/13 12:20	10/03/13 13:37	1
C9-C12 Aliphatics (unadjusted)	0.317	В	0.261	0.0104 mg/Kg	₩	10/01/13 12:20	10/03/13 13:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Surrogate 2,5-Dibromotoluene (fid)		Qualifier	70 - 130			Prepared 10/01/13 12:20	Analyzed 10/03/13 13:37	Dil Fac

0.261

1.94 B

0.0104 mg/Kg

10/01/13 12:20

10/03/13 13:37

2,5-Dibromotoluene (pla)	00		70 - 130				10/01/13 12.20	10/03/13 13.37	1
— Method: MA-EPH - Massachusett	s - Extractable	e Petroleum	Hydrocarbons	(GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	3.18	J	6.13	2.45	mg/Kg	<del></del>	09/30/13 14:30	10/02/13 15:50	1
C19-C36 Aliphatics	5.49	J	6.13	2.45	mg/Kg	₩	09/30/13 14:30	10/02/13 15:50	1
C9-C18 Aliphatics	<6.13		6.13	2.45	mg/Kg	₩	09/30/13 14:30	10/02/13 15:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<6.35		6.35	6.35	mg/Kg	<del>\</del>		10/04/13 10:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	70	-	40 - 140				09/30/13 14:30	10/02/13 15:50	1
2-Bromonaphthalene	98		40 - 140				09/30/13 14:30	10/02/13 15:50	1

TestAmerica Buffalo

2/3/2014

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Client Sample ID: WCSB-6 (8-9) Lab Sample ID: 480-46783-11

Date Collected: 09/25/13 14:15 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 78.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	111		40 - 140	09/30/13 14:30	10/02/13 15:50	1
o-Terphenyl	86		40 - 140	09/30/13 14:30	10/02/13 15:50	1

Client Sample ID: WCSB-5 (0.5-1.5)

Lab Sample ID: 480-46783-12 Date Collected: 09/25/13 15:15 **Matrix: Solid** 

te Received: 09/28/13 01:00							Percent Solids: 91.3	
Method: 8260C - Volatile Organi Analyte	ic Compounds (GC/MS) Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.28	1.28	0.256		<del>_</del>	10/03/13 12:44	10/03/13 20:38	10
1,1,1-Trichloroethane	<1.28	1.28		mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
1,1,2,2-Tetrachloroethane	<1.28	1.28		mg/Kg	⇔	10/03/13 12:44	10/03/13 20:38	10
1,1,2-Trichloroethane	<1.28	1.28		mg/Kg		10/03/13 12:44	10/03/13 20:38	10
1,1-Dichloroethane	<1.28	1.28		mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,1-Dichloroethene	<1.28	1.28		mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,1-Dichloropropene	<1.28	1.28		mg/Kg		10/03/13 12:44	10/03/13 20:38	10
1,2,3-Trichlorobenzene	<1.28	1.28		mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,2,3-Trichloropropane	<1.28	1.28		mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,2,4-Trichlorobenzene	3.23	1.28	0.156	mg/Kg		10/03/13 12:44	10/03/13 20:38	 10
1,2,4-Trimethylbenzene	<1.28	1.28		mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,2-Dibromo-3-Chloropropane	<12.8	12.8	1.28	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,2-Dichlorobenzene	2.06	1.28	0.200	mg/Kg		10/03/13 12:44	10/03/13 20:38	10
1,2-Dichloroethane	<1.28	1.28		mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,2-Dichloropropane	<1.28	1.28		mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
1,3,5-Trimethylbenzene	<1.28	1.28	0.165	mg/Kg		10/03/13 12:44	10/03/13 20:38	10
1,3-Dichlorobenzene	22.7	1.28	0.132	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
1,3-Dichloropropane	<1.28	1.28	0.154	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
1,4-Dichlorobenzene	27.5	1.28	0.358	mg/Kg	φ.	10/03/13 12:44	10/03/13 20:38	10
1,4-Dioxane	<128 *	128	12.3	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
2,2-Dichloropropane	<1.28	1.28	0.435	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
2-Butanone (MEK)	<12.8 *	12.8	0.937	mg/Kg		10/03/13 12:44	10/03/13 20:38	10
2-Chlorotoluene	<1.28	1.28	0.168	mg/Kg	☼	10/03/13 12:44	10/03/13 20:38	10
2-Hexanone	<12.8	12.8	1.28	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
4-Chlorotoluene	<1.28	1.28	0.302	mg/Kg		10/03/13 12:44	10/03/13 20:38	10
4-Isopropyltoluene	<1.28	1.28	0.205	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
4-Methyl-2-pentanone (MIBK)	<12.8	12.8	0.839	mg/Kg	☼	10/03/13 12:44	10/03/13 20:38	10
Acetone	<128	128	2.16	mg/Kg		10/03/13 12:44	10/03/13 20:38	10
Benzene	0.430 J	1.28	0.125	mg/Kg	☼	10/03/13 12:44	10/03/13 20:38	10
Bromobenzene	<1.28	1.28	0.450	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Bromoform	<1.28	1.28	1.28	mg/Kg	₩.	10/03/13 12:44	10/03/13 20:38	10
Bromomethane	<2.56	2.56	0.230	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Carbon disulfide	<1.28	1.28	1.28	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Carbon tetrachloride	<1.28	1.28	0.248	mg/Kg		10/03/13 12:44	10/03/13 20:38	10
Chlorobromomethane	<1.28	1.28	0.185	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Chlorodibromomethane	<1.28	1.28	0.328	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Chloroethane	<2.56	2.56	0.578	mg/Kg		10/03/13 12:44	10/03/13 20:38	10
Chloroform	<1.28	1.28	0.158	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Chloromethane	<2.56	2.56	0.155	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
cis-1,2-Dichloroethene	<1.28	1.28	0.328	mg/Kg		10/03/13 12:44	10/03/13 20:38	10

TestAmerica Buffalo

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2/3/2014

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

4-Bromofluorobenzene (Surr)

Client Sample ID: WCSB-5 (0.5-1.5)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-12

Date Collected: 09/25/13 15:15 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 91.3 Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<1.28		1.28	0.369	mg/Kg	<del>-</del>	10/03/13 12:44	10/03/13 20:38	10
Dichlorobromomethane	<1.28		1.28	0.343	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Dichlorodifluoromethane	<2.56	*	2.56	0.211	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Ethyl ether	<1.28		1.28	1.07	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Ethylbenzene	<1.28		1.28	0.177	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Ethylene Dibromide	<1.28		1.28	0.329	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Hexachlorobutadiene	<1.28		1.28	0.300	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Isopropyl ether	<1.28		1.28	1.28	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Isopropylbenzene	<1.28		1.28	0.386	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Methyl tert-butyl ether	<1.28		1.28	0.251	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Methylene Chloride	<1.28		1.28	1.18	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
m-Xylene & p-Xylene	<2.56		2.56	0.430	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Naphthalene	5.90	J	12.8	0.343	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
n-Butylbenzene	<1.28		1.28	0.223	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
N-Propylbenzene	<1.28		1.28	0.205	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
o-Xylene	<1.28		1.28	0.334	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
sec-Butylbenzene	<1.28		1.28	0.223	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Styrene	<1.28		1.28	0.128	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Tert-amyl methyl ether	<1.28		1.28	0.655	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Tert-butyl ethyl ether	<1.28		1.28	1.13	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
tert-Butylbenzene	<1.28		1.28	0.266	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Tetrachloroethene	<1.28		1.28	0.343	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Tetrahydrofuran	<25.6		25.6	2.35	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Toluene	<1.28		1.28	0.193	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
trans-1,2-Dichloroethene	<1.28		1.28	0.264	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
trans-1,3-Dichloropropene	<1.28		1.28	1.13	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Trichloroethene	<1.28		1.28	0.563	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Trichlorofluoromethane	<2.56		2.56	0.242	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Vinyl chloride	<1.28		1.28	0.312	mg/Kg	₩	10/03/13 12:44	10/03/13 20:38	10
Dibromomethane	<1.28		1.28	0.264	mg/Kg	₽	10/03/13 12:44	10/03/13 20:38	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130				10/03/13 12:44	10/03/13 20:38	10
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				10/03/13 12:44	10/03/13 20:38	10
4-Bromofluorobenzene (Surr)	100		70 - 130				10/03/13 12:44	10/03/13 20:38	10

ı	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac
	Toluene-d8 (Surr)	95		70 - 130	10/03/13 12:4	4 10/03/13 20:38	10
	1,2-Dichloroethane-d4 (Surr)	97		70 - 130	10/03/13 12:4	4 10/03/13 20:38	10
	4-Bromofluorobenzene (Surr)	100		70 - 130	10/03/13 12:4	4 10/03/13 20:38	10

Method: 8260C - Volatile Orga	nic Compounds (G	SC/MS) - DL	_						
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	95.0		6.40	1.69	mg/Kg	₩	10/03/13 12:44	10/04/13 17:27	50
Surrogate	%Recovery G	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surrogate Toluene-d8 (Surr)	%Recovery 96	Qualifier	Limits 70 - 130				Prepared 10/03/13 12:44	Analyzed 10/04/13 17:27	Dil Fac

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<362		362	230	mg/Kg	<del>\</del>	10/01/13 09:24	10/03/13 21:52	10000
PCB-1221	<362		362	175	mg/Kg	₽	10/01/13 09:24	10/03/13 21:52	10000
PCB-1232	<362		362	153	mg/Kg	₽	10/01/13 09:24	10/03/13 21:52	10000

70 - 130

100

TestAmerica Buffalo

10/03/13 12:44 10/04/13 17:27

Lab Sample ID: 480-46783-12

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-5 (0.5-1.5)

Date Collected: 09/25/13 15:15

Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 91.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	<362		362	142	mg/Kg	<del>-</del>	10/01/13 09:24	10/03/13 21:52	10000
PCB-1248	<362		362	186	mg/Kg	\$	10/01/13 09:24	10/03/13 21:52	10000
PCB-1254	<362		362	186	mg/Kg	₩	10/01/13 09:24	10/03/13 21:52	10000
PCB-1260	1040		362	186	mg/Kg	\$	10/01/13 09:24	10/03/13 21:52	10000
PCB-1262	<362		362	296	mg/Kg	₽	10/01/13 09:24	10/03/13 21:52	10000
PCB-1268	<362		362	153	mg/Kg	₩	10/01/13 09:24	10/03/13 21:52	10000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				10/01/13 09:24	10/03/13 21:52	10000
Tetrachloro-m-xylene	0	X	30 - 150				10/01/13 09:24	10/03/13 21:52	10000
DCB Decachlorobiphenyl	0	X	30 - 150				10/01/13 09:24	10/03/13 21:52	10000
DCB Decachlorobiphenyl	0	X	30 - 150				10/01/13 09:24	10/03/13 21:52	10000

Method: MA-EPH - Massachusetts	- Extractable	Petroleum F	lydrocarbons	(GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	2070		5.14	2.05	mg/Kg	<del></del>	09/30/13 14:30	10/02/13 16:20	1
C19-C36 Aliphatics	9730		5.14	2.05	mg/Kg	₽	09/30/13 14:30	10/02/13 16:20	1
C9-C18 Aliphatics	6890	В	5.14	2.05	mg/Kg	₩	09/30/13 14:30	10/02/13 16:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	1870		5.48	5.48	mg/Kg	₽		10/04/13 10:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	0	X	40 - 140	09/30/13 14:30	10/02/13 16:20	1
2-Bromonaphthalene	78		40 - 140	09/30/13 14:30	10/02/13 16:20	1
2-Fluorobiphenyl	107		40 - 140	09/30/13 14:30	10/02/13 16:20	1
o-Terphenyl	84		40 - 140	09/30/13 14:30	10/02/13 16:20	1

Client Sample ID: WCSB-5 (5-6) Lab Sample ID: 480-46783-13 Date Collected: 09/25/13 15:25 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 73.8

Analyte	Result Qualit	ier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.37	1.37	0.274	mg/Kg	<del></del>	10/03/13 12:44	10/03/13 21:03	10
1,1,1-Trichloroethane	<1.37	1.37	0.199	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,1,2,2-Tetrachloroethane	<1.37	1.37	0.445	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,1,2-Trichloroethane	<1.37	1.37	0.356	mg/Kg	\$	10/03/13 12:44	10/03/13 21:03	10
1,1-Dichloroethane	<1.37	1.37	0.335	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,1-Dichloroethene	<1.37	1.37	0.336	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,1-Dichloropropene	<1.37	1.37	0.389	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2,3-Trichlorobenzene	<1.37	1.37	0.291	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2,3-Trichloropropane	<1.37	1.37	0.279	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2,4-Trichlorobenzene	2.45	1.37	0.167	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2,4-Trimethylbenzene	<1.37	1.37	0.526	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2-Dibromo-3-Chloropropane	<13.7	13.7	1.37	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2-Dichlorobenzene	2.10	1.37	0.214	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2-Dichloroethane	<1.37	1.37	0.138	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,2-Dichloropropane	<1.37	1.37	1.37	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,3,5-Trimethylbenzene	<1.37	1.37	0.177	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10
1,3-Dichlorobenzene	15.8	1.37	0.141	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-13

Matrix: Solid

Percent Solids: 73.8

Client Sample	ID:	WCSB-5	(5-6)
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Date Collected: 09/25/13 15:25 Date Received: 09/28/13 01:00

Method: 8260C - Volatile Organ				11!4	_	B !	A 1 .	B.: -
Analyte	Result Qualific			Unit	— <del>D</del>	Prepared	Analyzed	Dil Fa
,3-Dichloropropane	<1.37	1.37		mg/Kg		10/03/13 12:44	10/03/13 21:03	
,4-Dichlorobenzene	24.2	1.37		mg/Kg	*	10/03/13 12:44	10/03/13 21:03	1
,4-Dioxane	<137 *	137		mg/Kg		10/03/13 12:44	10/03/13 21:03	1
2,2-Dichloropropane	<1.37	1.37		mg/Kg	<u></u>	10/03/13 12:44	10/03/13 21:03	1
-Butanone (MEK)	<13.7 *	13.7		mg/Kg	₩.	10/03/13 12:44	10/03/13 21:03	1
2-Chlorotoluene	<1.37	1.37	0.180		₩.	10/03/13 12:44	10/03/13 21:03	1
-Hexanone	<13.7	13.7		mg/Kg	<u>.</u>	10/03/13 12:44	10/03/13 21:03	
-Chlorotoluene	<1.37	1.37		mg/Kg	<b>.</b>	10/03/13 12:44	10/03/13 21:03	•
-Isopropyltoluene	<1.37	1.37	0.220	0 0	**	10/03/13 12:44	10/03/13 21:03	
-Methyl-2-pentanone (MIBK)	<13.7	13.7		mg/Kg		10/03/13 12:44	10/03/13 21:03	
acetone	<137	137		mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	•
Benzene	0.526 J	1.37	0.134	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
romobenzene	<1.37	1.37		mg/Kg		10/03/13 12:44	10/03/13 21:03	
romoform	<1.37	1.37		mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
romomethane	<2.74	2.74	0.247	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
arbon disulfide	<1.37	1.37	1.37	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
arbon tetrachloride	<1.37	1.37	0.265	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
hlorobromomethane	<1.37	1.37	0.198	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
hlorodibromomethane	<1.37	1.37	0.351	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
hloroethane	<2.74	2.74	0.620	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
hloroform	<1.37	1.37	0.169	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
hloromethane	<2.74	2.74	0.166	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
s-1,2-Dichloroethene	<1.37	1.37	0.351	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
s-1,3-Dichloropropene	<1.37	1.37	0.395	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
ichlorobromomethane	<1.37	1.37	0.367	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
ichlorodifluoromethane	<2.74 *	2.74	0.226	mg/Kg		10/03/13 12:44	10/03/13 21:03	
thyl ether	<1.37	1.37	1.15	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
thylbenzene	<1.37	1.37	0.189	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
thylene Dibromide	<1.37	1.37	0.352	mg/Kg		10/03/13 12:44	10/03/13 21:03	
exachlorobutadiene	<1.37	1.37	0.321		₩	10/03/13 12:44	10/03/13 21:03	
opropyl ether	<1.37	1.37	1.37	mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
opropylbenzene	<1.37	1.37		mg/Kg		10/03/13 12:44	10/03/13 21:03	
ethyl tert-butyl ether	<1.37	1.37	0.269		₽	10/03/13 12:44	10/03/13 21:03	
ethylene Chloride	<1.37	1.37	1.26	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
-Xylene & p-Xylene	<2.74	2.74		mg/Kg		10/03/13 12:44	10/03/13 21:03	
aphthalene	1.16 J	13.7		mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
Butylbenzene	<1.37	1.37		mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
-Propylbenzene	<1.37	1.37		mg/Kg		10/03/13 12:44	10/03/13 21:03	
-Xylene	<1.37	1.37		mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
ec-Butylbenzene	<1.37	1.37		mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
tyrene	<1.37	1.37		mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
ert-amyl methyl ether	<1.37	1.37		mg/Kg		10/03/13 12:44	10/03/13 21:03	
ert-butyl ethyl ether	<1.37	1.37		mg/Kg	<del>X</del>	10/03/13 12:44	10/03/13 21:03	
rt-Butylbenzene	<1.37	1.37		mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
etrachloroethene	<1.37	1.37		mg/Kg	₩.	10/03/13 12:44	10/03/13 21:03	
etrahydrofuran	<27.4	27.4		mg/Kg	<u></u>	10/03/13 12:44	10/03/13 21:03	
bluene	<1.37	1.37		mg/Kg	₽	10/03/13 12:44	10/03/13 21:03	
ans-1,2-Dichloroethene	<1.37	1.37	0.283	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	
ans-1,3-Dichloropropene	<1.37	1.37	1.21	mg/Kg	₩	10/03/13 12:44	10/03/13 21:03	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 15:25

Client Sample ID: WCSB-5 (5-6)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-13

Matrix: Solid

3

5

8

11

13

14

ate Collected: 09/25/13 15:25								Percent Soli	ds: 73.
Method: 8260C - Volatile Organic		(GC/MS) (Co Qualifier	ontinued) RL	MDL	Linit	D	Prepared	Analyzed	Dil Fa
Analyte Trichloroethene	<1.37	Qualifier	1.37			— <del>ö</del>	10/03/13 12:44	10/03/13 21:03	1
Trichlorofluoromethane			2.74		mg/Kg		10/03/13 12:44	10/03/13 21:03	
	<2.74								1
Vinyl chloride	<1.37		1.37		mg/Kg		10/03/13 12:44	10/03/13 21:03	
Dibromomethane	<1.37		1.37	0.282	mg/Kg	*	10/03/13 12:44	10/03/13 21:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	94		70 - 130				10/03/13 12:44	10/03/13 21:03	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				10/03/13 12:44	10/03/13 21:03	1
4-Bromofluorobenzene (Surr)	98		70 - 130				10/03/13 12:44	10/03/13 21:03	1
Method: 8260C - Volatile Organic	Compounds	(GC/MS) - D	L						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chlorobenzene	105		5.48	1.45	mg/Kg	<del></del>	10/03/13 12:44	10/04/13 17:53	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	96		70 - 130				10/03/13 12:44	10/04/13 17:53	4
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				10/03/13 12:44	10/04/13 17:53	4
4-Bromofluorobenzene (Surr)	98		70 - 130				10/03/13 12:44	10/04/13 17:53	4
Method: MA VPH - Massachusett	s - Volatila Pa	troleum Hy	drocarbons (GC	2)					
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
C5-C8 Aliphatics (adjusted)	1.48	J	33.9	1.36	mg/Kg	<del></del>		10/07/13 11:24	10
C9-C12 Aliphatics (adjusted)	<33.9		33.9		mg/Kg	₽		10/07/13 11:24	10
Method: MAVPH - Massachusetts Analyte		roleum Hyd Qualifier	rocarbons (GC RL	) MDL	Unit	D	Prepared	Analyzed	Dil Fa
<u> </u>			28.7			— <del>¤</del>	10/01/13 12:20	10/02/13 05:59	10
C5-C8 Aliphatics (unadjusted)	1.48	J		1.15	mg/Kg	₩			
C9-C10 Aromatics	33.1		28.7		mg/Kg		10/01/13 12:20	10/02/13 05:59	10
C9-C12 Aliphatics (unadjusted)	53.2		28.7	1.15	mg/Kg	₽	10/01/13 12:20	10/02/13 05:59	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2,5-Dibromotoluene (fid)	90		70 - 130				10/01/13 12:20	10/02/13 05:59	10
2,5-Dibromotoluene (pid)	93		70 - 130				10/01/13 12:20	10/02/13 05:59	10
Method: MA-EPH - Massachusett	s - Extractable	e Petroleum	Hydrocarbons	(GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
C11-C22 Aromatics (unadjusted)	1250		6.50	2.60	mg/Kg	₩	09/30/13 14:30	10/02/13 16:49	
C19-C36 Aliphatics	3230		6.50	2.60	mg/Kg	₽	09/30/13 14:30	10/02/13 16:49	
C9-C18 Aliphatics	2390	В	6.50	2.60	mg/Kg	₩	09/30/13 14:30	10/02/13 16:49	
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
C11-C22 Aromatics (Adjusted)	1150		6.78	6.78	mg/Kg	<del></del>		10/04/13 10:18	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctadecane	84		40 - 140				09/30/13 14:30	10/02/13 16:49	
2-Bromonaphthalene	106		40 - 140				09/30/13 14:30	10/02/13 16:49	
2-Fluorobiphenyl	131		40 - 140				09/30/13 14:30	10/02/13 16:49	
o-Terphenyl	87								

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-5 (2.5-3)

Lab Sample ID: 480-46783-14 Date Collected: 09/25/13 15:30

Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 84.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<19.8		19.8	12.6	mg/Kg	<del>*</del>	10/01/13 09:24	10/04/13 17:06	500
PCB-1221	<19.8		19.8	9.61	mg/Kg	₽	10/01/13 09:24	10/04/13 17:06	500
PCB-1232	<19.8		19.8	8.41	mg/Kg	₽	10/01/13 09:24	10/04/13 17:06	500
PCB-1242	<19.8		19.8	7.81	mg/Kg	₽	10/01/13 09:24	10/04/13 17:06	500
PCB-1248	<19.8		19.8	10.2	mg/Kg	₽	10/01/13 09:24	10/04/13 17:06	500
PCB-1254	<19.8		19.8	10.2	mg/Kg	₽	10/01/13 09:24	10/04/13 17:06	500
PCB-1260	37.5		19.8	10.2	mg/Kg	*	10/01/13 09:24	10/04/13 17:06	500
PCB-1262	<19.8		19.8	16.2	mg/Kg	₽	10/01/13 09:24	10/04/13 17:06	500
PCB-1268	<19.8		19.8	8.41	mg/Kg	₩	10/01/13 09:24	10/04/13 17:06	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150				10/01/13 09:24	10/04/13 17:06	500
Tetrachloro-m-xylene	0	X	30 - 150				10/01/13 09:24	10/04/13 17:06	500
DCB Decachlorobiphenyl	0	X	30 - 150				10/01/13 09:24	10/04/13 17:06	500
DCB Decachlorobiphenyl	0	X	30 - 150				10/01/13 09:24	10/04/13 17:06	500

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.569		0.569	0.227	mg/Kg	<u> </u>	09/30/13 14:10	10/01/13 20:08	1
Arsenic	5.39		1.14	0.455	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Barium	139		0.569	0.125	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Beryllium	1.43		0.227	0.0318	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Cadmium	0.603	<b>A</b>	0.227	0.0341	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Chromium	12.0		0.569	0.227	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Nickel	7.12		1.14	0.262	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Thallium	<1.14		1.14	0.341	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Vanadium	12.6		0.569	0.125	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Zinc	181	В	2.84	0.174	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Lead	295		0.569	0.273	mg/Kg	₽	09/30/13 14:10	10/01/13 20:08	1
Selenium	0.847	<b>A</b>	0.569	0.455	mg/Kg	₩	09/30/13 14:10	10/01/13 20:08	1
Antimony	<0.569	Λ	0.569	0.455	mg/Kg		09/30/13 14:10	10/01/13 20:08	1

Analyte	Result	Qualifier	RL	MDL	Unit		)	Prepared	Analyzed	Dil Fac
Mercury	0.550		0.110	0.00887	mg/Kg	₽	¥	09/30/13 10:40	09/30/13 12:14	1

Client Sample ID: TB-09252013 Lab Sample ID: 480-46783-15 Date Collected: 09/25/13 12:00

Date Received: 09/28/13 01:00

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.0658		0.0658	0.0132	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
1,1,1-Trichloroethane	<0.0658		0.0658	0.00955	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
1,1,2,2-Tetrachloroethane	<0.0658		0.0658	0.0213	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
1,1,2-Trichloroethane	<0.0658		0.0658	0.0171	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
1,1-Dichloroethane	<0.0658		0.0658	0.0161	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
1,1-Dichloroethene	<0.0658		0.0658	0.0161	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
1,1-Dichloropropene	<0.0658		0.0658	0.0187	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
1,2,3-Trichlorobenzene	<0.0658		0.0658	0.0140	mg/Kg		10/02/13 11:15	10/02/13 18:28	1

TestAmerica Buffalo

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**Matrix: Solid** 

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-15

Matrix: Solid

Client Sample ID: TB-09252013

Date Collected: 09/25/13 12:00 Date Received: 09/28/13 01:00

o-Xylene

Analyte	Result Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.0658	0.0658	0.0134	mg/Kg		10/02/13 11:15	10/02/13 18:28	
1,2,4-Trichlorobenzene	<0.0658	0.0658	0.00800	mg/Kg		10/02/13 11:15	10/02/13 18:28	,
1,2,4-Trimethylbenzene	<0.0658	0.0658	0.0253	mg/Kg		10/02/13 11:15	10/02/13 18:28	•
1,2-Dibromo-3-Chloropropane	<0.658	0.658	0.0658	mg/Kg		10/02/13 11:15	10/02/13 18:28	
1,2-Dichlorobenzene	<0.0658	0.0658	0.0103			10/02/13 11:15	10/02/13 18:28	•
1,2-Dichloroethane	<0.0658	0.0658	0.00661	mg/Kg		10/02/13 11:15	10/02/13 18:28	•
1,2-Dichloropropane	<0.0658	0.0658	0.0658	mg/Kg		10/02/13 11:15	10/02/13 18:28	
1,3,5-Trimethylbenzene	<0.0658	0.0658	0.00847	mg/Kg		10/02/13 11:15	10/02/13 18:28	•
1,3-Dichlorobenzene	<0.0658	0.0658	0.00676	mg/Kg		10/02/13 11:15	10/02/13 18:28	
1,3-Dichloropropane	<0.0658	0.0658	0.00789	mg/Kg		10/02/13 11:15	10/02/13 18:28	
1,4-Dichlorobenzene	<0.0658	0.0658	0.0184	mg/Kg		10/02/13 11:15	10/02/13 18:28	•
1,4-Dioxane	<6.58	6.58	0.634	mg/Kg		10/02/13 11:15	10/02/13 18:28	•
2,2-Dichloropropane	<0.0658	0.0658	0.0224	mg/Kg		10/02/13 11:15	10/02/13 18:28	
2-Butanone (MEK)	<0.658 *	0.658	0.0482	mg/Kg		10/02/13 11:15	10/02/13 18:28	
2-Chlorotoluene	<0.0658	0.0658	0.00863	mg/Kg		10/02/13 11:15	10/02/13 18:28	•
2-Hexanone	<0.658	0.658	0.0658	mg/Kg		10/02/13 11:15	10/02/13 18:28	
4-Chlorotoluene	<0.0658	0.0658	0.0155	mg/Kg		10/02/13 11:15	10/02/13 18:28	
4-Isopropyltoluene	<0.0658	0.0658	0.0106	mg/Kg		10/02/13 11:15	10/02/13 18:28	
4-Methyl-2-pentanone (MIBK)	<0.658	0.658	0.0432	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Acetone	<6.58	6.58	0.111	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Benzene	<0.0658	0.0658	0.00645	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Bromobenzene	<0.0658	0.0658	0.0232	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Bromoform	<0.0658	0.0658	0.0658	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Bromomethane	<0.132	0.132	0.0118	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Carbon disulfide	<0.0658	0.0658	0.0658	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Carbon tetrachloride	<0.0658	0.0658	0.0127	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Chlorobenzene	<0.0658	0.0658	0.0174	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Chlorobromomethane	<0.0658	0.0658	0.00950	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Chlorodibromomethane	<0.0658	0.0658	0.0168	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Chloroethane	<0.132	0.132	0.0297	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Chloroform	<0.0658	0.0658	0.00813	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Chloromethane	<0.132	0.132	0.00795	mg/Kg		10/02/13 11:15	10/02/13 18:28	
cis-1,2-Dichloroethene	<0.0658	0.0658	0.0168	mg/Kg		10/02/13 11:15	10/02/13 18:28	
cis-1,3-Dichloropropene	<0.0658	0.0658	0.0189	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Dichlorobromomethane	<0.0658	0.0658	0.0176	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Dichlorodifluoromethane	<0.132	0.132	0.0109	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Ethyl ether	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
Ethylbenzene	<0.0658	0.0658	0.00908	mg/Kg		10/02/13 11:15	10/02/13 18:28	
Ethylene Dibromide	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
Hexachlorobutadiene	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
Isopropyl ether	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
Isopropylbenzene	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
Methyl tert-butyl ether	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
Methylene Chloride	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
m-Xylene & p-Xylene	<0.132	0.132		mg/Kg		10/02/13 11:15	10/02/13 18:28	
Naphthalene	<0.658	0.658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
n-Butylbenzene	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
N-Propylbenzene	<0.0658	0.0658		mg/Kg		10/02/13 11:15	10/02/13 18:28	
- Volume	<0.0000	0.0050	0.0170	ma/Ka		10/02/13 11:15	10/02/13 10:20	

TestAmerica Buffalo

10/02/13 18:28

10/02/13 11:15

0.0658

0.0172 mg/Kg

<0.0658

3

5

6

9

10

12

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: TB-09252013

Lab Sample ID: 480-46783-15 Date Collected: 09/25/13 12:00

Matrix: Solid Date Received: 09/28/13 01:00

Method: 8260C - Volatile Orga	nic Compounds (	GC/MS) (Cd	ontinued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.0658		0.0658	0.0114	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Styrene	<0.0658		0.0658	0.00658	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Tert-amyl methyl ether	<0.0658		0.0658	0.0337	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Tert-butyl ethyl ether	<0.0658		0.0658	0.0579	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
tert-Butylbenzene	<0.0658		0.0658	0.0137	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Tetrachloroethene	<0.0658		0.0658	0.0177	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Tetrahydrofuran	<1.32		1.32	0.121	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Toluene	<0.0658		0.0658	0.00995	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
trans-1,2-Dichloroethene	<0.0658		0.0658	0.0136	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
trans-1,3-Dichloropropene	<0.0658		0.0658	0.0579	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Trichloroethene	<0.0658		0.0658	0.0289	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Trichlorofluoromethane	<0.132		0.132	0.0124	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Vinyl chloride	<0.0658		0.0658	0.0161	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Dibromomethane	<0.0658		0.0658	0.0136	mg/Kg		10/02/13 11:15	10/02/13 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130				10/02/13 11:15	10/02/13 18:28	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130				10/02/13 11:15	10/02/13 18:28	1
4-Bromofluorobenzene (Surr)	98		70 - 130				10/02/13 11:15	10/02/13 18:28	1

Client Sample ID: WCSB-4 (2.5-3)

Lab Sample ID: 480-46783-16 Date Collected: 09/26/13 07:45 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 78.0

Method: 8260C - Volatile Organi Analyte	C Compounds (C Result (	,	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.117	· -	0.117	0.0234	mg/Kg	<u></u>	10/03/13 12:52	10/04/13 18:18	1
1,1,1-Trichloroethane	<0.117		0.117	0.0170	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,1,2,2-Tetrachloroethane	<0.117		0.117	0.0380	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,1,2-Trichloroethane	<0.117		0.117	0.0305	mg/Kg	≎	10/03/13 12:52	10/04/13 18:18	1
1,1-Dichloroethane	<0.117		0.117	0.0286	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	1
1,1-Dichloroethene	<0.117		0.117	0.0287	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	1
1,1-Dichloropropene	<0.117		0.117	0.0333	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	1
1,2,3-Trichlorobenzene	0.0310	J	0.117	0.0249	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	1
1,2,3-Trichloropropane	<0.117		0.117	0.0238	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	1
1,2,4-Trichlorobenzene	0.0497	J	0.117	0.0142	mg/Kg	₩.	10/03/13 12:52	10/04/13 18:18	1
1,2,4-Trimethylbenzene	0.0553	J	0.117	0.0450	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,2-Dibromo-3-Chloropropane	<1.17		1.17	0.117	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,2-Dichlorobenzene	<0.117		0.117	0.0183	mg/Kg	\$	10/03/13 12:52	10/04/13 18:18	1
1,2-Dichloroethane	<0.117		0.117	0.0118	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,2-Dichloropropane	<0.117		0.117	0.117	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,3,5-Trimethylbenzene	<0.117		0.117	0.0151	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,3-Dichlorobenzene	<0.117		0.117	0.0120	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,3-Dichloropropane	<0.117		0.117	0.0141	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,4-Dichlorobenzene	<0.117		0.117	0.0328	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
1,4-Dioxane	<11.7		11.7	1.13	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
2,2-Dichloropropane	<0.117		0.117	0.0398	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
2-Butanone (MEK)	<1.17	*	1.17	0.0857	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
2-Chlorotoluene	<0.117		0.117	0.0154	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
2-Hexanone	<1.17		1.17	0.117	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-16

Matrix: Solid

Percent Solids: 78.0

Client Samp	le ID:	WCSB-4	(2.5-3)
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Date Collected: 09/26/13 07:45 Date Received: 09/28/13 01:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	<0.117		0.117	0.0276	mg/Kg	<u> </u>	10/03/13 12:52	10/04/13 18:18	1
4-Isopropyltoluene	<0.117		0.117	0.0188	mg/Kg	₩.	10/03/13 12:52	10/04/13 18:18	· · · · · · · · · ·
4-Methyl-2-pentanone (MIBK)	<1.17		1.17	0.0768	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Acetone	<11.7		11.7	0.197	mg/Kg	\$	10/03/13 12:52	10/04/13 18:18	• • • • • • • • • • • • • • • • • • • •
Benzene	0.0468	J	0.117	0.0115	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Bromobenzene	<0.117		0.117	0.0412	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Bromoform	<0.117		0.117	0.117	mg/Kg	\$	10/03/13 12:52	10/04/13 18:18	1
Bromomethane	<0.234		0.234	0.0211	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	
Carbon disulfide	<0.117		0.117	0.117	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	
Carbon tetrachloride	<0.117		0.117	0.0227	mg/Kg	₩.	10/03/13 12:52	10/04/13 18:18	
Chlorobenzene	<0.117		0.117	0.0309	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	1
Chlorobromomethane	<0.117		0.117	0.0169	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
Chlorodibromomethane	<0.117		0.117	0.0300	mg/Kg	\$	10/03/13 12:52	10/04/13 18:18	1
Chloroethane	<0.234		0.234	0.0529	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	1
Chloroform	<0.117		0.117	0.0145	mg/Kg	☼	10/03/13 12:52	10/04/13 18:18	1
Chloromethane	<0.234		0.234	0.0141	mg/Kg		10/03/13 12:52	10/04/13 18:18	
cis-1,2-Dichloroethene	<0.117		0.117	0.0300	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	
cis-1,3-Dichloropropene	<0.117		0.117	0.0337	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	
Dichlorobromomethane	<0.117		0.117	0.0314			10/03/13 12:52	10/04/13 18:18	• • • • • • •
Dichlorodifluoromethane	<0.234	*	0.234	0.0193	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Ethyl ether	<0.117		0.117	0.0984	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Ethylbenzene	0.124		0.117	0.0162	mg/Kg	\$	10/03/13 12:52	10/04/13 18:18	• • • • • • • •
Ethylene Dibromide	<0.117		0.117	0.0301	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Hexachlorobutadiene	<0.117		0.117	0.0275	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Isopropyl ether	<0.117		0.117	0.117	mg/Kg		10/03/13 12:52	10/04/13 18:18	1
Isopropylbenzene	<0.117		0.117	0.0353	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	
Methyl tert-butyl ether	<0.117		0.117	0.0230	mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	
Methylene Chloride	<0.117		0.117	0.108	mg/Kg		10/03/13 12:52	10/04/13 18:18	
m-Xylene & p-Xylene	0.110	J	0.234	0.0394	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
Naphthalene	0.0757	J	1.17	0.0314	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
n-Butylbenzene	0.124		0.117	0.0204	mg/Kg		10/03/13 12:52	10/04/13 18:18	
N-Propylbenzene	0.136		0.117	0.0187	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
o-Xylene	0.0409	J	0.117	0.0306	mg/Kg	₽	10/03/13 12:52	10/04/13 18:18	
sec-Butylbenzene	<0.117		0.117	0.0204			10/03/13 12:52	10/04/13 18:18	,
Styrene	<0.117		0.117	0.0117		₽	10/03/13 12:52	10/04/13 18:18	
Tert-amyl methyl ether	<0.117		0.117	0.0600		₽	10/03/13 12:52	10/04/13 18:18	
Tert-butyl ethyl ether	<0.117		0.117		mg/Kg	₩	10/03/13 12:52	10/04/13 18:18	,
tert-Butylbenzene	<0.117		0.117	0.0244		₩	10/03/13 12:52	10/04/13 18:18	
Tetrachloroethene	<0.117		0.117	0.0314		₽	10/03/13 12:52	10/04/13 18:18	
Tetrahydrofuran	6.67		2.34		mg/Kg		10/03/13 12:52	10/04/13 18:18	
Toluene	0.0474	J	0.117	0.0177		₽	10/03/13 12:52	10/04/13 18:18	
trans-1,2-Dichloroethene	<0.117		0.117	0.0242		₽	10/03/13 12:52	10/04/13 18:18	
trans-1,3-Dichloropropene	<0.117		0.117		mg/Kg		10/03/13 12:52	10/04/13 18:18	
Trichloroethene	<0.117		0.117	0.0515		₽	10/03/13 12:52	10/04/13 18:18	
Trichlorofluoromethane	<0.234		0.234	0.0222		₩	10/03/13 12:52	10/04/13 18:18	
Vinyl chloride	<0.117		0.117	0.0286		ф.	10/03/13 12:52	10/04/13 18:18	· · · · ·
Dibromomethane	<0.117		0.117	0.0241		₽	10/03/13 12:52	10/04/13 18:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	86		70 - 130				10/03/13 12:52	10/04/13 18:18	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-16

Matrix: Solid Percent Solids: 78.0

Client Sample ID: WCSB-4 (2.5-3)
Data Callastad, 00/26/42 07:45

Date Collected: 09/26/13 07:45 Date Received: 09/28/13 01:00

### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		70 - 130	10/03/13 12:52	10/04/13 18:18	1
4-Bromofluorobenzene (Surr)	92		70 - 130	10/03/13 12:52	10/04/13 18:18	1

#### Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	79.6		3.21	0.128	mg/Kg	<del>\tilde{\pi}</del>		10/07/13 11:24	10
C9-C12 Aliphatics (adjusted)	50.7		3.21	0.128	mg/Kg	₩		10/07/13 11:24	10

#### Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	82.0	В	3.09	0.124	mg/Kg	₩	10/01/13 12:20	10/02/13 17:34	10
C9-C10 Aromatics	13.6		3.09	0.124	mg/Kg	₩	10/01/13 12:20	10/02/13 17:34	10
C9-C12 Aliphatics (unadjusted)	66.3	В	3.09	0.124	mg/Kg	₩	10/01/13 12:20	10/02/13 17:34	10

Surrogate	%Recovery (	Qualifier Limit	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	93	70 - 1	<u>10/01/13 12:20</u>	10/02/13 17:34	10
2,5-Dibromotoluene (pid)	93	70 - 1	80 10/01/13 12:20	10/02/13 17:34	10

### Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0416		0.0416	0.0265	mg/Kg	<del>-</del>	10/01/13 09:24	10/03/13 22:22	1
PCB-1221	< 0.0416		0.0416	0.0202	mg/Kg	₽	10/01/13 09:24	10/03/13 22:22	1
PCB-1232	< 0.0416		0.0416	0.0177	mg/Kg	₩	10/01/13 09:24	10/03/13 22:22	1
PCB-1242	<0.0416		0.0416	0.0164	mg/Kg	₩	10/01/13 09:24	10/03/13 22:22	1
PCB-1248	< 0.0416		0.0416	0.0214	mg/Kg	₽	10/01/13 09:24	10/03/13 22:22	1
PCB-1254	< 0.0416		0.0416	0.0214	mg/Kg	₩	10/01/13 09:24	10/03/13 22:22	1
PCB-1260	0.122		0.0416	0.0214	mg/Kg	₽	10/01/13 09:24	10/03/13 22:22	1
PCB-1262	< 0.0416		0.0416	0.0341	mg/Kg	₩	10/01/13 09:24	10/03/13 22:22	1
PCB-1268	< 0.0416		0.0416	0.0177	mg/Kg	₩	10/01/13 09:24	10/03/13 22:22	1

Surrogate	%Recovery Q	Qualifier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62	30 - 150	10/01/13 09:24	10/03/13 22:22	1
Tetrachloro-m-xylene	75	30 - 150	10/01/13 09:24	10/03/13 22:22	1
DCB Decachlorobiphenyl	66	30 - 150	10/01/13 09:24	10/03/13 22:22	1
DCB Decachlorobiphenyl	78	30 - 150	10/01/13 09:24	10/03/13 22:22	1

### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	5.57	J	5.90	2.36	mg/Kg	*	09/30/13 14:30	10/02/13 17:48	1
C19-C36 Aliphatics	23.6		5.90	2.36	mg/Kg	₽	09/30/13 14:30	10/02/13 17:48	1
C9-C18 Aliphatics	2.50	JB	5.90	2.36	mg/Kg	₽	09/30/13 14:30	10/02/13 17:48	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<6.41		6.41	6.41	mg/Kg	₩		10/04/13 10:18	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	77	40 - 140	09/30/13 14:30	10/02/13 17:48	1
2-Bromonaphthalene	99	40 - 140	09/30/13 14:30	10/02/13 17:48	1
2-Fluorobiphenyl	114	40 - 140	09/30/13 14:30	10/02/13 17:48	1
o-Terphenyl	90	40 - 140	09/30/13 14:30	10/02/13 17:48	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-4 (2.5-3)

Lab Sample ID: 480-46783-16 Date Collected: 09/26/13 07:45 Matrix: Solid

Date Received: 09/28/13 01:00 Percent Solids: 78.0

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.596		0.596	0.238	mg/Kg	<del></del>	09/30/13 14:10	10/01/13 20:10	1
Arsenic	74.1		1.19	0.477	mg/Kg	₩	09/30/13 14:10	10/01/13 20:10	1
Barium	24.9		0.596	0.131	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Beryllium	0.198	J	0.238	0.0334	mg/Kg	*	09/30/13 14:10	10/01/13 20:10	1
Cadmium	1.57	^	0.238	0.0358	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Chromium	98.0		0.596	0.238	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Nickel	129		1.19	0.274	mg/Kg	*	09/30/13 14:10	10/01/13 20:10	1
Thallium	<1.19		1.19	0.358	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Vanadium	215		0.596	0.131	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Zinc	369	В	2.98	0.182	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Lead	274		0.596	0.286	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Selenium	3.66	^	0.596	0.477	mg/Kg	₽	09/30/13 14:10	10/01/13 20:10	1
Antimony	3.49	^	0.596	0.477	mg/Kg	\$	09/30/13 14:10	10/01/13 20:10	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Mercury 0.0760 J 0.121 0.00982 mg/Kg 09/30/13 10:40 09/30/13 12:15

Client Sample ID: WCSB-4 (6-7) Lab Sample ID: 480-46783-17 Date Collected: 09/26/13 07:50

**Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 68.1

Method: 8260C - Volatile Organ Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00281		0.00281	0.000562	mg/Kg	<u></u>	10/01/13 11:37	10/01/13 22:20	1
1,1,1-Trichloroethane	<0.00281		0.00281	0.000408	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,1,2,2-Tetrachloroethane	<0.00281		0.00281	0.000912	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,1,2-Trichloroethane	<0.00281		0.00281	0.000731	mg/Kg		10/01/13 11:37	10/01/13 22:20	1
1,1-Dichloroethane	<0.00281		0.00281	0.000686	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
1,1-Dichloroethene	<0.00281		0.00281	0.000688	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,1-Dichloropropene	<0.00281		0.00281	0.000799	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
1,2,3-Trichlorobenzene	<0.00281		0.00281	0.000597	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,2,3-Trichloropropane	<0.00281		0.00281	0.000573	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,2,4-Trichlorobenzene	<0.00281		0.00281	0.000342	mg/Kg	₩.	10/01/13 11:37	10/01/13 22:20	1
1,2,4-Trimethylbenzene	<0.00281		0.00281	0.00108	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,2-Dibromo-3-Chloropropane	<0.0281		0.0281	0.00281	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,2-Dichlorobenzene	<0.00281		0.00281	0.000440	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,2-Dichloroethane	<0.00281		0.00281	0.000282	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,2-Dichloropropane	<0.00281		0.00281	0.00281	mg/Kg	☼	10/01/13 11:37	10/01/13 22:20	1
1,3,5-Trimethylbenzene	<0.00281		0.00281	0.000362	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,3-Dichlorobenzene	<0.00281		0.00281	0.000289	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,3-Dichloropropane	<0.00281		0.00281	0.000337	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,4-Dichlorobenzene	<0.00281		0.00281	0.000787	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
1,4-Dioxane	<0.281		0.281	0.0271	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
2,2-Dichloropropane	<0.00281		0.00281	0.000956	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
2-Butanone (MEK)	<0.0281		0.0281	0.00206	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
2-Chlorotoluene	<0.00281		0.00281	0.000369	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
2-Hexanone	<0.0281		0.0281	0.00281	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
4-Chlorotoluene	<0.00281		0.00281	0.000664	mg/Kg	₩.	10/01/13 11:37	10/01/13 22:20	1
4-Isopropyltoluene	<0.00281		0.00281	0.000451	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/26/13 07:50

Date Received: 09/28/13 01:00

4-Bromofluorobenzene (Surr)

Client Sample ID: WCSB-4 (6-7)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-17

Matrix: Solid

**Percent Solids:** 

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: 68.1	

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	<0.0281		0.0281	0.00184	mg/Kg	<u> </u>	10/01/13 11:37	10/01/13 22:20	1
Acetone	0.0966	J	0.281	0.00474	mg/Kg	\$	10/01/13 11:37	10/01/13 22:20	1
Benzene	<0.00281		0.00281	0.000276	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Bromobenzene	<0.00281		0.00281	0.000990	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Bromoform	<0.00281		0.00281	0.00281	mg/Kg		10/01/13 11:37	10/01/13 22:20	1
Bromomethane	< 0.00562		0.00562	0.000506	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Carbon disulfide	<0.00281		0.00281	0.00281	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Carbon tetrachloride	<0.00281		0.00281	0.000544	mg/Kg	ф.	10/01/13 11:37	10/01/13 22:20	1
Chlorobenzene	0.00449		0.00281	0.000742		₩	10/01/13 11:37	10/01/13 22:20	1
Chlorobromomethane	<0.00281		0.00281	0.000406		₩	10/01/13 11:37	10/01/13 22:20	1
Chlorodibromomethane	<0.00281		0.00281	0.000720			10/01/13 11:37	10/01/13 22:20	1
Chloroethane	<0.00562		0.00562	0.00127	0 0	₽	10/01/13 11:37	10/01/13 22:20	1
Chloroform	<0.00281		0.00281	0.000348	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
Chloromethane	<0.00562	*	0.00562	0.000340			10/01/13 11:37	10/01/13 22:20	
cis-1,2-Dichloroethene	0.000817		0.00281	0.000720		₽	10/01/13 11:37	10/01/13 22:20	1
cis-1,3-Dichloropropene	<0.00281	•	0.00281	0.000720		₽	10/01/13 11:37	10/01/13 22:20	1
Dichlorobromomethane	<0.00281		0.00281	0.000754			10/01/13 11:37	10/01/13 22:20	
Dichlorodifluoromethane	<0.00562		0.00562	0.000754		₽	10/01/13 11:37	10/01/13 22:20	1
Ethyl ether	<0.00382		0.00302	0.000403			10/01/13 11:37	10/01/13 22:20	1
	<0.00281		0.00281	0.00230			10/01/13 11:37	10/01/13 22:20	
Ethylpenzene  Ethylpen Dibromide				0.000388		₩			1
Ethylene Dibromide	<0.00281		0.00281				10/01/13 11:37	10/01/13 22:20	
Hexachlorobutadiene	<0.00281		0.00281	0.000659			10/01/13 11:37	10/01/13 22:20	
Isopropyl ether	<0.00281		0.00281	0.00281		₩	10/01/13 11:37	10/01/13 22:20	1
Isopropylbenzene	<0.00281		0.00281	0.000848			10/01/13 11:37	10/01/13 22:20	1
Methyl tert-butyl ether	<0.00281		0.00281	0.000552		<u></u>	10/01/13 11:37	10/01/13 22:20	
Methylene Chloride	<0.00281		0.00281	0.00259		*	10/01/13 11:37	10/01/13 22:20	1
m-Xylene & p-Xylene	<0.00562		0.00562	0.000945			10/01/13 11:37	10/01/13 22:20	1
Naphthalene	<0.0281		0.0281	0.000754		<u></u>	10/01/13 11:37	10/01/13 22:20	
n-Butylbenzene	<0.00281		0.00281	0.000489		*	10/01/13 11:37	10/01/13 22:20	1
N-Propylbenzene	<0.00281		0.00281	0.000450		<b>‡</b>	10/01/13 11:37	10/01/13 22:20	1
o-Xylene	<0.00281		0.00281	0.000735			10/01/13 11:37	10/01/13 22:20	1
sec-Butylbenzene	<0.00281		0.00281	0.000489	mg/Kg	*	10/01/13 11:37	10/01/13 22:20	1
Styrene	<0.00281		0.00281	0.000281	mg/Kg	**	10/01/13 11:37	10/01/13 22:20	1
Tert-amyl methyl ether	<0.00281		0.00281	0.00144	mg/Kg		10/01/13 11:37	10/01/13 22:20	1
Tert-butyl ethyl ether	<0.00281		0.00281	0.00247		₩	10/01/13 11:37	10/01/13 22:20	1
tert-Butylbenzene	<0.00281		0.00281	0.000585	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Tetrachloroethene	<0.00281	*	0.00281	0.000755	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Tetrahydrofuran	<0.0562		0.0562	0.00517	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Toluene	<0.00281		0.00281	0.000425	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
trans-1,2-Dichloroethene	<0.00281		0.00281	0.000580	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
trans-1,3-Dichloropropene	<0.00281		0.00281	0.00247	mg/Kg	₩	10/01/13 11:37	10/01/13 22:20	1
Trichloroethene	<0.00281		0.00281	0.00124	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
Trichlorofluoromethane	<0.00562		0.00562	0.000532	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
Vinyl chloride	<0.00281		0.00281	0.000686	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
Dibromomethane	<0.00281		0.00281	0.000579	mg/Kg	₽	10/01/13 11:37	10/01/13 22:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130				10/01/13 11:37	10/01/13 22:20	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				10/01/13 11:37	10/01/13 22:20	1

TestAmerica Buffalo

10/01/13 22:20

10/01/13 11:37

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/26/13 07:50 Date Received: 09/28/13 01:00

Client Sample ID: WCSB-4 (6-7)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-17

Matrix: Solid
Percent Solids: 68.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0481		0.0481	0.0306	mg/Kg	<del>-</del>	10/01/13 09:24	10/03/13 22:37	1
PCB-1221	<0.0481		0.0481	0.0233	mg/Kg	₽	10/01/13 09:24	10/03/13 22:37	1
PCB-1232	<0.0481		0.0481	0.0204	mg/Kg	₽	10/01/13 09:24	10/03/13 22:37	1
PCB-1242	<0.0481		0.0481	0.0190	mg/Kg	₽	10/01/13 09:24	10/03/13 22:37	1
PCB-1248	<0.0481		0.0481	0.0248	mg/Kg	₽	10/01/13 09:24	10/03/13 22:37	1
PCB-1254	<0.0481		0.0481	0.0248	mg/Kg	₽	10/01/13 09:24	10/03/13 22:37	1
PCB-1260	0.0282	J	0.0481	0.0248	mg/Kg	\$	10/01/13 09:24	10/03/13 22:37	1
PCB-1262	<0.0481		0.0481	0.0394	mg/Kg	₽	10/01/13 09:24	10/03/13 22:37	1
PCB-1268	<0.0481		0.0481	0.0204	mg/Kg	₩	10/01/13 09:24	10/03/13 22:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	150		30 - 150				10/01/13 09:24	10/03/13 22:37	1
Tetrachloro-m-xylene	71		30 - 150				10/01/13 09:24	10/03/13 22:37	1
DCB Decachlorobiphenyl	67		30 - 150				10/01/13 09:24	10/03/13 22:37	1
DCB Decachlorobiphenyl	77		30 - 150				10/01/13 09:24	10/03/13 22:37	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	6.68	J	7.08	2.83	mg/Kg	<u></u>	09/30/13 14:30	10/02/13 18:18	1
C19-C36 Aliphatics	13.6		7.08	2.83	mg/Kg	₽	09/30/13 14:30	10/02/13 18:18	1
C9-C18 Aliphatics	<7.08		7.08	2.83	mg/Kg	₩	09/30/13 14:30	10/02/13 18:18	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<7.35		7.35	7.35	mg/Kg	₽		10/04/13 10:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1 Chlorocatadecane	70		40 140				00/20/12 14:20	10/02/12 18:18	

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	70		40 - 140	OS	9/30/13 14:30	10/02/13 18:18	1
2-Bromonaphthalene	97		40 - 140	OS	9/30/13 14:30	10/02/13 18:18	1
2-Fluorobiphenyl	112		40 - 140	OS	9/30/13 14:30	10/02/13 18:18	1
o-Terphenyl	80		40 - 140	09	9/30/13 14:30	10/02/13 18:18	1

Client Sample ID: WCSB-2 (14-15) Lab Sample ID: 480-46783-18

Date Collected: 09/26/13 09:25 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 76.5

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.108	0.108	0.0216	mg/Kg	<u> </u>	10/03/13 12:52	10/04/13 18:43	1
1,1,1-Trichloroethane	<0.108	0.108	0.0157	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,1,2,2-Tetrachloroethane	<0.108	0.108	0.0350	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,1,2-Trichloroethane	<0.108	0.108	0.0280	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,1-Dichloroethane	<0.108	0.108	0.0263	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,1-Dichloroethene	<0.108	0.108	0.0264	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,1-Dichloropropene	<0.108	0.108	0.0306	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,2,3-Trichlorobenzene	<0.108	0.108	0.0229	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,2,3-Trichloropropane	<0.108	0.108	0.0220	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,2,4-Trichlorobenzene	<0.108	0.108	0.0131	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,2,4-Trimethylbenzene	<0.108	0.108	0.0414	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,2-Dibromo-3-Chloropropane	<1.08	1.08	0.108	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
1,2-Dichlorobenzene	<0.108	0.108	0.0169	mg/Kg	<b>\$</b>	10/03/13 12:52	10/04/13 18:43	1
1,2-Dichloroethane	<0.108	0.108	0.0108	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-18

Matrix: Solid

Percent Solids: 76.5

Client Sample ID: WCSB-2 (14-15)

Date Collected: 09/26/13 09:25 Date Received: 09/28/13 01:00

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dichloropropane	<0.108 <b>Qualifier</b>	0.108		mg/Kg	— <del>□</del>	10/03/13 12:52	10/04/13 18:43	
,3,5-Trimethylbenzene	<0.108	0.108	0.0139	mg/Kg		10/03/13 12:52	10/04/13 18:43	
I,3-Dichlorobenzene	0.0189 J	0.108	0.0111	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
,3-Dichloropropane	<0.108	0.108	0.0111	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
I,4-Dichlorobenzene	<0.108	0.108	0.0302			10/03/13 12:52	10/04/13 18:43	
,4-Dioxane	<10.8	10.8		mg/Kg		10/03/13 12:52	10/04/13 18:43	
2,2-Dichloropropane	<0.108	0.108	0.0367	mg/Kg		10/03/13 12:52	10/04/13 18:43	
<u> </u>	<1.08 *	1.08	0.0307			10/03/13 12:52	10/04/13 18:43	
2-Butanone (MEK) 2-Chlorotoluene	<0.108	0.108	0.0769	mg/Kg		10/03/13 12:52	10/04/13 18:43	
2-Hexanone	<1.08	1.08		mg/Kg		10/03/13 12:52		
				mg/Kg			10/04/13 18:43	
4-Chlorotoluene	<0.108	0.108	0.0254		₩	10/03/13 12:52	10/04/13 18:43	
1-Isopropyltoluene	<0.108	0.108	0.0173			10/03/13 12:52	10/04/13 18:43	
I-Methyl-2-pentanone (MIBK)	<1.08	1.08	0.0707			10/03/13 12:52	10/04/13 18:43	
Acetone	<10.8	10.8		mg/Kg		10/03/13 12:52	10/04/13 18:43	
Benzene	0.0120 J	0.108	0.0106		<u>~</u>	10/03/13 12:52	10/04/13 18:43	
Bromobenzene	<0.108	0.108	0.0380			10/03/13 12:52	10/04/13 18:43	
Bromoform	<0.108	0.108		mg/Kg	*	10/03/13 12:52	10/04/13 18:43	
Bromomethane	<0.216	0.216	0.0194		*	10/03/13 12:52	10/04/13 18:43	
Carbon disulfide	<0.108	0.108	0.108	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	
Carbon tetrachloride	<0.108	0.108	0.0209	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	
Chlorobenzene	<0.108	0.108	0.0285	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
Chlorobromomethane	<0.108	0.108	0.0156	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
Chlorodibromomethane	<0.108	0.108	0.0276	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	
Chloroethane	<0.216	0.216	0.0487	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
Chloroform	<0.108	0.108	0.0133	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
Chloromethane	<0.216	0.216	0.0130	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
cis-1,2-Dichloroethene	<0.108	0.108	0.0276	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
cis-1,3-Dichloropropene	<0.108	0.108	0.0311	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
Dichlorobromomethane	<0.108	0.108	0.0289	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
Dichlorodifluoromethane	<0.216 *	0.216	0.0178	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	
Ethyl ether	<0.108	0.108	0.0906	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	
Ethylbenzene	<0.108	0.108	0.0149	mg/Kg		10/03/13 12:52	10/04/13 18:43	
Ethylene Dibromide	<0.108	0.108	0.0277	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
- Hexachlorobutadiene	<0.108	0.108	0.0253	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	
sopropyl ether	<0.108	0.108	0.108	mg/Kg		10/03/13 12:52	10/04/13 18:43	
sopropylbenzene	<0.108	0.108	0.0325		₩	10/03/13 12:52	10/04/13 18:43	
Methyl tert-butyl ether	<0.108	0.108	0.0212		₩	10/03/13 12:52	10/04/13 18:43	
Methylene Chloride	<0.108	0.108	0.0992		Ф	10/03/13 12:52	10/04/13 18:43	
n-Xylene & p-Xylene	<0.216	0.216	0.0362		₽	10/03/13 12:52	10/04/13 18:43	
Naphthalene	<1.08	1.08	0.0289		₽	10/03/13 12:52	10/04/13 18:43	
n-Butylbenzene	<0.108	0.108	0.0188			10/03/13 12:52	10/04/13 18:43	
N-Propylbenzene	<0.108	0.108	0.0173		₽	10/03/13 12:52	10/04/13 18:43	
o-Xylene	<0.108	0.108	0.0282		₽	10/03/13 12:52	10/04/13 18:43	
ec-Butylbenzene	<0.108	0.108	0.0282		 ∯	10/03/13 12:52	10/04/13 18:43	
•					₩	10/03/13 12:52		
Styrene	<0.108	0.108	0.0108				10/04/13 18:43	
Fert-amyl methyl ether	<0.108	0.108	0.0552		<del>.</del>	10/03/13 12:52	10/04/13 18:43	
Fert-butyl ethyl ether	<0.108	0.108	0.0949		₩	10/03/13 12:52	10/04/13 18:43	
ert-Butylbenzene	<0.108	0.108	0.0224	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/26/13 09:25

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-2 (14-15)

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-18

Matrix: Solid Percent Solids: 76.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	<2.16		2.16	0.198	mg/Kg	₩	10/03/13 12:52	10/04/13 18:43	1
Toluene	<0.108		0.108	0.0163	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
trans-1,2-Dichloroethene	<0.108		0.108	0.0223	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
trans-1,3-Dichloropropene	<0.108		0.108	0.0949	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
Trichloroethene	<0.108		0.108	0.0474	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
Trichlorofluoromethane	<0.216		0.216	0.0204	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
Vinyl chloride	<0.108		0.108	0.0263	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
Dibromomethane	<0.108		0.108	0.0222	mg/Kg	₽	10/03/13 12:52	10/04/13 18:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130				10/03/13 12:52	10/04/13 18:43	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				10/03/13 12:52	10/04/13 18:43	1
4-Bromofluorobenzene (Surr)	102		70 - 130				10/03/13 12:52	10/04/13 18:43	1

Client Sample ID: WCSB-1 (1-2) Lab Sample ID: 480-46783-19

Date Collected: 09/26/13 10:40 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 84.4

ate Received. 09/26/13 01.00							Percent Son	us. 04
Method: 8260C - Volatile Orgar Analyte	nic Compounds (GC/MS)  Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00390	0.00390	0.000779	mg/Kg	<u></u>	10/02/13 11:15	10/02/13 18:53	
1,1,1-Trichloroethane	<0.00390	0.00390	0.000566	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,1,2,2-Tetrachloroethane	<0.00390	0.00390	0.00126	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,1,2-Trichloroethane	<0.00390	0.00390	0.00101	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,1-Dichloroethane	<0.00390	0.00390	0.000951	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,1-Dichloroethene	<0.00390	0.00390	0.000954	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,1-Dichloropropene	<0.00390	0.00390	0.00111	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,2,3-Trichlorobenzene	<0.00390	0.00390	0.000827	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,2,3-Trichloropropane	<0.00390	0.00390	0.000793	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	•
1,2,4-Trichlorobenzene	<0.00390	0.00390	0.000474	mg/Kg	₽	10/02/13 11:15	10/02/13 18:53	
1,2,4-Trimethylbenzene	0.00238 J	0.00390	0.00150	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,2-Dibromo-3-Chloropropane	<0.0390	0.0390	0.00390	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,2-Dichlorobenzene	<0.00390	0.00390	0.000609	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,2-Dichloroethane	<0.00390	0.00390	0.000391	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	•
1,2-Dichloropropane	<0.00390	0.00390	0.00390	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	•
1,3,5-Trimethylbenzene	<0.00390	0.00390	0.000502	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,3-Dichlorobenzene	<0.00390	0.00390	0.000400	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	•
1,3-Dichloropropane	<0.00390	0.00390	0.000467	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
1,4-Dichlorobenzene	<0.00390	0.00390	0.00109	mg/Kg	₩.	10/02/13 11:15	10/02/13 18:53	,
1,4-Dioxane	<0.390	0.390	0.0376	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
2,2-Dichloropropane	<0.00390	0.00390	0.00132	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
2-Butanone (MEK)	0.0740 *	0.0390	0.00285	mg/Kg		10/02/13 11:15	10/02/13 18:53	
2-Chlorotoluene	<0.00390	0.00390	0.000511	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
2-Hexanone	<0.0390	0.0390	0.00390	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
4-Chlorotoluene	<0.00390	0.00390	0.000919	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
4-Isopropyltoluene	<0.00390	0.00390	0.000625	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
4-Methyl-2-pentanone (MIBK)	<0.0390	0.0390	0.00256	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
Acetone	0.207 J	0.390	0.00656	mg/Kg	<b>\$</b>	10/02/13 11:15	10/02/13 18:53	
Benzene	0.0463	0.00390	0.000382	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	
Bromobenzene	<0.00390	0.00390	0.00137	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-1 (1-2)

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

PCB-1016

Result Qualifier

<0.0391

Lab Sample ID: 480-46783-19 Date Collected: 09/26/13 10:40 Matrix: Solid Percent Solids: 84.4 Date Received: 09/28/13 01:00

Method: 8260C - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<0.00390		0.00390	0.00390	mg/Kg	<u> </u>	10/02/13 11:15	10/02/13 18:53	1
Bromomethane	<0.00779		0.00779	0.000701	mg/Kg		10/02/13 11:15	10/02/13 18:53	1
Carbon disulfide	0.00556		0.00390	0.00390	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Carbon tetrachloride	<0.00390		0.00390	0.000754	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Chlorobenzene	<0.00390		0.00390	0.00103	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Chlorobromomethane	<0.00390		0.00390	0.000563	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Chlorodibromomethane	<0.00390		0.00390	0.000997	mg/Kg		10/02/13 11:15	10/02/13 18:53	1
Chloroethane	<0.00779		0.00779	0.00176	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Chloroform	<0.00390		0.00390	0.000481	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Chloromethane	<0.00779		0.00779	0.000471	mg/Kg		10/02/13 11:15	10/02/13 18:53	1
cis-1,2-Dichloroethene	<0.00390		0.00390	0.000997	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
cis-1,3-Dichloropropene	<0.00390		0.00390	0.00112		₩	10/02/13 11:15	10/02/13 18:53	1
Dichlorobromomethane	<0.00390		0.00390	0.00104		<del>-</del>	10/02/13 11:15	10/02/13 18:53	1
Dichlorodifluoromethane	<0.00779		0.00779	0.000644	mg/Kg	₽	10/02/13 11:15	10/02/13 18:53	1
Ethyl ether	<0.00390		0.00390	0.00327		₽	10/02/13 11:15	10/02/13 18:53	1
Ethylbenzene	0.0108		0.00390	0.000538			10/02/13 11:15	10/02/13 18:53	1
Ethylene Dibromide	<0.00390		0.00390	0.00100		₩	10/02/13 11:15	10/02/13 18:53	1
Hexachlorobutadiene	<0.00390		0.00390	0.000913		₩	10/02/13 11:15	10/02/13 18:53	1
Isopropyl ether	<0.00390		0.00390	0.00390			10/02/13 11:15	10/02/13 18:53	·
Isopropylbenzene	0.00173	1	0.00390	0.00117		₩	10/02/13 11:15	10/02/13 18:53	1
Methyl tert-butyl ether	<0.00390	•	0.00390	0.000765	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Methylene Chloride	<0.00390		0.00390	0.00358	mg/Kg		10/02/13 11:15	10/02/13 18:53	·
•	0.00955		0.00779	0.00131		₽	10/02/13 11:15	10/02/13 18:53	1
m-Xylene & p-Xylene Naphthalene	< 0.0390		0.0390	0.00101	mg/Kg	₽	10/02/13 11:15	10/02/13 18:53	1
<u>.</u>		1	0.00390	0.000678			10/02/13 11:15	10/02/13 18:53	
n-Butylbenzene	0.00160	J	0.00390	0.000678	mg/Kg		10/02/13 11:15	10/02/13 18:53	1
N-Propylbenzene	0.00411		0.00390	0.000023	mg/Kg		10/02/13 11:15	10/02/13 18:53	1
o-Xylene	0.00643				mg/Kg				
sec-Butylbenzene	<0.00390		0.00390	0.000678	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Styrene Test amul methyl ether	<0.00390		0.00390	0.000390	mg/Kg	₩	10/02/13 11:15	10/02/13 18:53	1
Tert-amyl methyl ether	<0.00390		0.00390	0.00199	mg/Kg	¥ 	10/02/13 11:15	10/02/13 18:53	
Tert-butyl ethyl ether	<0.00390		0.00390	0.00343		₩	10/02/13 11:15	10/02/13 18:53	1
tert-Butylbenzene	<0.00390		0.00390	0.000810	mg/Kg		10/02/13 11:15	10/02/13 18:53	1
Tetrachloroethene	0.00179	J	0.00390	0.00105		<u></u>	10/02/13 11:15	10/02/13 18:53	
Tetrahydrofuran 	<0.0779		0.0779	0.00717			10/02/13 11:15	10/02/13 18:53	1
Toluene	0.0333		0.00390	0.000589	mg/Kg		10/02/13 11:15	10/02/13 18:53	1
trans-1,2-Dichloroethene	<0.00390		0.00390	0.000804		<u></u>	10/02/13 11:15	10/02/13 18:53	
trans-1,3-Dichloropropene	<0.00390		0.00390	0.00343			10/02/13 11:15	10/02/13 18:53	1
Trichloroethene	<0.00390		0.00390	0.00171			10/02/13 11:15	10/02/13 18:53	1
Trichlorofluoromethane	<0.00779		0.00779	0.000737		<u></u> .	10/02/13 11:15	10/02/13 18:53	
Vinyl chloride	<0.00390		0.00390	0.000951		*	10/02/13 11:15	10/02/13 18:53	1
Dibromomethane	<0.00390		0.00390	0.000802	mg/Kg	≎	10/02/13 11:15	10/02/13 18:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130				10/02/13 11:15	10/02/13 18:53	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130				10/02/13 11:15	10/02/13 18:53	1
4-Bromofluorobenzene (Surr)	95		70 - 130				10/02/13 11:15	10/02/13 18:53	1

10/01/13 09:24 10/03/13 23:21

Analyzed

Prepared

₩

RL

0.0391

MDL Unit

0.0249 mg/Kg

10/04/13 10:18

10/02/13 18:48

09/30/13 14:30

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 09/28/13 01:00

C11-C22 Aromatics (Adjusted)

o-Terphenyl

Client Sample ID: WCSB-1 (1-2)

Lab Sample ID: 480-46783-19 Date Collected: 09/26/13 10:40

**Matrix: Solid** Percent Solids: 84.4

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued) Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte PCB-1221 <0.0391 0.0391 0.0189 10/01/13 09:24 10/03/13 23:21 mg/Kg PCB-1232 0.0391 < 0.0391 10/01/13 09:24 10/03/13 23:21 0.0166 mg/Kg ā PCB-1242 < 0.0391 0.0391 0.0154 mg/Kg 10/01/13 09:24 10/03/13 23:21 PCB-1248 < 0.0391 0.0391 0.0201 mg/Kg 10/01/13 09:24 10/03/13 23:21 ₩ PCB-1254 < 0.0391 0.0391 0.0201 mg/Kg 10/01/13 09:24 10/03/13 23:21

PCB-1260 < 0.0391 0.0391 10/01/13 09:24 10/03/13 23:21 0.0201 mg/Kg ŭ PCB-1262 < 0.0391 0.0391 0.0320 mg/Kg 10/01/13 09:24 10/03/13 23:21 PCB-1268 <0.0391 0.0391 0.0166 10/01/13 09:24 10/03/13 23:21 ma/Ka %Recovery Surrogate Qualifier Limits Prepared Analyzed Dil Fac

10/01/13 09:24 10/03/13 23:21 Tetrachloro-m-xylene 73 30 - 150 Tetrachloro-m-xylene 81 30 - 150 10/01/13 09:24 10/03/13 23:21 DCB Decachlorobiphenyl 91 30 - 150 10/01/13 09:24 10/03/13 23:21 79 DCB Decachlorobiphenyl 30 - 150 10/01/13 09:24 10/03/13 23:21

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) Analyte Result Qualifier RL MDL Unit D Prepared Dil Fac Analyzed 5.54 09/30/13 14:30 C11-C22 Aromatics (unadjusted) 301 2.22 mg/Kg 10/02/13 18:48 ä 5.54 09/30/13 14:30 10/02/13 18:48 C19-C36 Aliphatics 10.6 2.22 mg/Kg ₩ 5.54 mg/Kg 09/30/13 14:30 10/02/13 18:48 **C9-C18 Aliphatics** 22.9 2.22 Analyte Result Qualifier RL RL Unit D Prepared Analyzed Dil Fac

%Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate 1-Chlorooctadecane 48 40 - 140 09/30/13 14:30 10/02/13 18:48 2-Bromonaphthalene 104 40 - 140 09/30/13 14:30 10/02/13 18:48 2-Fluorobiphenyl 122 40 - 140 09/30/13 14:30 10/02/13 18:48

5.92

145

53

5.92

mg/Kg

Client Sample ID: WCSB-1 (2.5-3) Lab Sample ID: 480-46783-20

40 - 140

Date Collected: 09/26/13 10:45 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 69.6

Method: 8260C - Volatile Organic Compounds (GC/MS) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ₩ 10/03/13 12:52 1,1,1,2-Tetrachloroethane < 0.159 0.159 0.0318 mg/Kg 10/04/13 19:09 10/03/13 12:52 1,1,1-Trichloroethane < 0.159 0.159 0.0231 mg/Kg 10/04/13 19:09 0.0516 ġ 10/03/13 12:52 1.1.2.2-Tetrachloroethane < 0.159 0.159 mg/Kg 10/04/13 19:09 ₽ 10/03/13 12:52 1,1,2-Trichloroethane < 0.159 0 159 0.0414 mg/Kg 10/04/13 19:09 1.1-Dichloroethane 0.0388 mg/Kg 10/03/13 12:52 10/04/13 19:09 < 0.159 0.159 ġ 10/03/13 12:52 1,1-Dichloroethene <0.159 0.159 0.0389 mg/Kg 10/04/13 19:09 1.1-Dichloropropene < 0.159 0 159 0.0452 mg/Kg 10/03/13 12:52 10/04/13 19:09 ä 10/03/13 12:52 10/04/13 19:09 1.2.3-Trichlorobenzene < 0.159 0.159 0.0338 mg/Kg 1,2,3-Trichloropropane 10/03/13 12:52 10/04/13 19:09 < 0.159 0.159 0.0324 mg/Kg 1,2,4-Trichlorobenzene < 0.159 0.159 0.0193 mg/Kg 10/03/13 12:52 10/04/13 19:09 10/03/13 12:52 10/04/13 19:09 124-Trimethylbenzene < 0.159 0 159 0.0611 mg/Kg ₩ 1,2-Dibromo-3-Chloropropane <1.59 1.59 0.159 mg/Kg 10/03/13 12:52 10/04/13 19:09 1,2-Dichlorobenzene < 0.159 10/03/13 12:52 0.159 0.0249 ma/Ka 10/04/13 19:09 1.2-Dichloroethane < 0.159 0.159 0.0160 mg/Kg 10/03/13 12:52 10/04/13 19:09 1,2-Dichloropropane < 0.159 0.159 0.159 mg/Kg 10/03/13 12:52 10/04/13 19:09

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-20

Matrix: Solid

Percent Solids: 69.6

Client Sample	ID: WCSB-1	(2.5-3)
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Date Collected: 09/26/13 10:45 Date Received: 09/28/13 01:00

Analyte	Result Qualifier	RL	MDi	Unit	D	Prepared	Analyzed	Dil Fa
1,3,5-Trimethylbenzene	<0.159 <b>Qualifier</b>	0.159	0.0205	mg/Kg	— <del>~</del>	10/03/13 12:52	10/04/13 19:09	DII F
1,3-Dichlorobenzene	<0.159	0.159	0.0164			10/03/13 12:52	10/04/13 19:09	
1,3-Dichloropropane	<0.159	0.159	0.0104	mg/Kg		10/03/13 12:52	10/04/13 19:09	
1,4-Dichlorobenzene	<0.159	0.159	0.0191		· · · · · · · · · · · · · · · · · · ·	10/03/13 12:52	10/04/13 19:09	
1,4-Dioxane	<15.9	15.9		mg/Kg		10/03/13 12:52	10/04/13 19:09	
2,2-Dichloropropane	<0.159	0.159	0.0541	mg/Kg		10/03/13 12:52	10/04/13 19:09	
2,2-Dictiloroproparie 2-Butanone (MEK)	<1.59 *	1.59				10/03/13 12:52	10/04/13 19:09	
2-Chlorotoluene	<0.159	0.159		mg/Kg		10/03/13 12:52	10/04/13 19:09	
2-Chlorototuene 2-Hexanone	<1.59	1.59		mg/Kg mg/Kg		10/03/13 12:52	10/04/13 19:09	
4-Chlorotoluene		0.159	0.139			10/03/13 12:52	10/04/13 19:09	
	<0.159				₩			
4-Isopropyltoluene	<0.159	0.159	0.0255		₩	10/03/13 12:52	10/04/13 19:09	
4-Methyl-2-pentanone (MIBK)	<1.59	1.59		mg/Kg		10/03/13 12:52	10/04/13 19:09	
Acetone	<15.9	15.9		mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Benzene	<0.159	0.159	0.0156		₩	10/03/13 12:52	10/04/13 19:09	
Bromobenzene	<0.159	0.159	0.0560	mg/Kg	· · · · · ·	10/03/13 12:52	10/04/13 19:09	
Bromoform	<0.159	0.159	0.159	mg/Kg	*	10/03/13 12:52	10/04/13 19:09	
Bromomethane	<0.318	0.318		mg/Kg		10/03/13 12:52	10/04/13 19:09	
Carbon disulfide	<0.159	0.159	0.159	mg/Kg		10/03/13 12:52	10/04/13 19:09	
Carbon tetrachloride	<0.159	0.159	0.0308	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Chlorobenzene	<0.159	0.159	0.0420	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Chlorobromomethane	<0.159	0.159	0.0230	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Chlorodibromomethane	<0.159	0.159	0.0407	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Chloroethane	<0.318	0.318	0.0719	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Chloroform	<0.159	0.159	0.0197	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Chloromethane	<0.318	0.318	0.0192	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
cis-1,2-Dichloroethene	<0.159	0.159	0.0407	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
cis-1,3-Dichloropropene	<0.159	0.159	0.0458	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Dichlorobromomethane	<0.159	0.159	0.0426	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Dichlorodifluoromethane	<0.318 *	0.318	0.0263	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Ethyl ether	<0.159	0.159	0.134	mg/Kg	₽	10/03/13 12:52	10/04/13 19:09	
Ethylbenzene	<0.159	0.159	0.0220	mg/Kg	₩.	10/03/13 12:52	10/04/13 19:09	
Ethylene Dibromide	<0.159	0.159	0.0408	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Hexachlorobutadiene	<0.159	0.159	0.0373	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
sopropyl ether	<0.159	0.159	0.159	mg/Kg	ф.	10/03/13 12:52	10/04/13 19:09	
sopropylbenzene	<0.159	0.159	0.0480	mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
Methyl tert-butyl ether	<0.159	0.159	0.0312		₩	10/03/13 12:52	10/04/13 19:09	
Methylene Chloride	<0.159	0.159		mg/Kg		10/03/13 12:52	10/04/13 19:09	
m-Xylene & p-Xylene	<0.318	0.318	0.0534		₽	10/03/13 12:52	10/04/13 19:09	
Naphthalene	<1.59	1.59	0.0426		₽	10/03/13 12:52	10/04/13 19:09	
n-Butylbenzene	<0.159	0.159	0.0277			10/03/13 12:52	10/04/13 19:09	
N-Propylbenzene	<0.159	0.159	0.0255		₩	10/03/13 12:52	10/04/13 19:09	
o-Xylene	<0.159	0.159		mg/Kg	₩	10/03/13 12:52	10/04/13 19:09	
sec-Butylbenzene	<0.159	0.159		mg/Kg		10/03/13 12:52	10/04/13 19:09	
Styrene	<0.159	0.159	0.0277			10/03/13 12:52	10/04/13 19:09	
•	<0.159		0.0159		Φ.			
Fert-amyl methyl ether		0.159			· · · · · · · · · · · · · · · · · · ·	10/03/13 12:52	10/04/13 19:09	
Tert-butyl ethyl ether	<0.159	0.159		mg/Kg		10/03/13 12:52	10/04/13 19:09	
ert-Butylbenzene	<0.159	0.159	0.0331		<b>☆</b>	10/03/13 12:52	10/04/13 19:09	
Tetrachloroethene Tetrahydrofuran	<0.159 <3.18	0.159	0.0427			10/03/13 12:52 10/03/13 12:52	10/04/13 19:09 10/04/13 19:09	

TestAmerica Buffalo

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12

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

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Client Sample ID: WCSB-1 (2.5-3)

Date Collected: 09/26/13 10:45 Date Received: 09/28/13 01:00 Lab Sample ID: 480-46783-20

Matrix: Solid Percent Solids: 69.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.159		0.159	0.0241	mg/Kg	<del>-</del>	10/03/13 12:52	10/04/13 19:09	1
trans-1,2-Dichloroethene	<0.159		0.159	0.0328	mg/Kg	₽	10/03/13 12:52	10/04/13 19:09	1
trans-1,3-Dichloropropene	<0.159		0.159	0.140	mg/Kg	₽	10/03/13 12:52	10/04/13 19:09	1
Trichloroethene	<0.159		0.159	0.0700	mg/Kg	₽	10/03/13 12:52	10/04/13 19:09	1
Trichlorofluoromethane	<0.318		0.318	0.0301	mg/Kg	₽	10/03/13 12:52	10/04/13 19:09	1
Vinyl chloride	<0.159		0.159	0.0388	mg/Kg		10/03/13 12:52	10/04/13 19:09	1
Dibromomethane	<0.159		0.159	0.0328	mg/Kg	₽	10/03/13 12:52	10/04/13 19:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130				10/03/13 12:52	10/04/13 19:09	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				10/03/13 12:52	10/04/13 19:09	1
4-Bromofluorobenzene (Surr)	100		70 - 130				10/03/13 12:52	10/04/13 19:09	1
- Method: 8082 - Polychlorinate	ed Biphenyls (GC/	ECD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
			4.05	2.06	malka	<u>₩</u>	10/01/13 09:24	10/03/13 23:36	100
PCB-1016	<4.65		4.65	2.96	mg/Kg	~	10/01/13 09.24	10/03/13 23.36	100
PCB-1016 PCB-1221	<4.65 <4.65		4.65 4.65	2.96	0 0	₩	10/01/13 09:24	10/03/13 23:36	100

Surrogato	% Pacayary	Qualifier Limits				Propared	Analyzod	Dil Eac
PCB-1268	<4.65	4	.65 1.97	mg/Kg	745	10/01/13 09:24	10/03/13 23:36	100
DOD 4000	-4.05	4	CE 4.07		ø	40/04/40 00:04	40/00/40 00:00	400
PCB-1262	<4.65	4	65 3.80	mg/Kg	₽	10/01/13 09:24	10/03/13 23:36	100
PCB-1260	5.27	4	65 2.39	mg/Kg	₩	10/01/13 09:24	10/03/13 23:36	100
PCB-1254	<4.65	4	65 2.39	mg/Kg		10/01/13 09:24	10/03/13 23:36	100
PCB-1248	<4.65	4	.65 2.39	mg/Kg	₽	10/01/13 09:24	10/03/13 23:36	100
_				0 0	·*			
PCB-1242	<4.65	4	.65 1.83	mg/Kg		10/01/13 09:24	10/03/13 23:36	100
PCB-1232	<4.65	4	.65 1.97	mg/Kg	₩	10/01/13 09:24	10/03/13 23:36	100
FCD-1221	<b>\4.03</b>	4	.00 2.20	illy/ity	.,.	10/01/13 09.24	10/03/13 23.30	100

	Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
۱	Tetrachloro-m-xylene	0	X	30 - 150	_	10/01/13 09:24	10/03/13 23:36	100
	Tetrachloro-m-xylene	0	X	30 - 150		10/01/13 09:24	10/03/13 23:36	100
	DCB Decachlorobiphenyl	0	X	30 - 150		10/01/13 09:24	10/03/13 23:36	100
	DCB Decachlorobiphenyl	0	X	30 - 150		10/01/13 09:24	10/03/13 23:36	100

Method: MA-EPH - Massachusetts -	Extractable	e Petroleum F	<b>Hydrocarbons</b>	(GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	3.19	J	7.03	2.81	mg/Kg	<del>\</del>	09/30/13 14:30	10/02/13 19:17	1
C19-C36 Aliphatics	<7.03		7.03	2.81	mg/Kg	₩	09/30/13 14:30	10/02/13 19:17	1
C9-C18 Aliphatics	<7.03		7.03	2.81	mg/Kg	₩	09/30/13 14:30	10/02/13 19:17	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<7.18		7.18	7.18	mg/Kg	₩		10/04/13 10:18	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	65	40 - 140	09/30/13 14:30	10/02/13 19:17	1
2-Bromonaphthalene	98	40 - 140	09/30/13 14:30	10/02/13 19:17	1
2-Fluorobiphenyl	113	40 - 140	09/30/13 14:30	10/02/13 19:17	1
o-Terphenyl	79	40 - 140	09/30/13 14:30	10/02/13 19:17	1

Method: 6010 - Metals (ICP)								
Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.711	0.711	0.284	mg/Kg	<del>\</del>	09/30/13 14:10	10/01/13 20:12	1
Arsenic	19.3	1.42	0.569	mg/Kg	₩	09/30/13 14:10	10/01/13 20:12	1
Barium	21.5	0.711	0.156	mg/Kg	₩	09/30/13 14:10	10/01/13 20:12	1
Beryllium	0.577	0.284	0.0398	mg/Kg		09/30/13 14:10	10/01/13 20:12	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Analyte

Mercury

TestAmerica Job ID: 480-46783-1

Analyzed

Client Sample ID: WCSB-1 (2.5-3)

Lab Sample ID: 480-46783-20

Date Collected: 09/26/13 10:45

Date Received: 09/28/13 01:00

Matrix: Solid
Percent Solids: 69.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.284	^	0.284	0.0427	mg/Kg	<del>-</del>	09/30/13 14:10	10/01/13 20:12	1
Chromium	17.6		0.711	0.284	mg/Kg	₽	09/30/13 14:10	10/01/13 20:12	1
Nickel	22.8		1.42	0.327	mg/Kg	\$	09/30/13 14:10	10/01/13 20:12	1
Thallium	<1.42		1.42	0.427	mg/Kg	₽	09/30/13 14:10	10/01/13 20:12	1
Vanadium	26.9		0.711	0.156	mg/Kg	₽	09/30/13 14:10	10/01/13 20:12	1
Zinc	82.6	В	3.55	0.218	mg/Kg	\$	09/30/13 14:10	10/01/13 20:12	1
Lead	183		0.711	0.341	mg/Kg	₽	09/30/13 14:10	10/01/13 20:12	1
Selenium	1.10	^	0.711	0.569	mg/Kg	₩	09/30/13 14:10	10/01/13 20:12	1
Antimony	<0.711	Λ	0.711	0.569	mg/Kg		09/30/13 14:10	10/01/13 20:12	1

Client Sample ID: WCSB-1 (7-8)

Lab Sample ID: 480-46783-21

0.138

RL

MDL Unit

0.0112 mg/Kg

Prepared

09/30/13 10:40 09/30/13 12:18

₩

Result Qualifier

0.0171 J

Date Collected: 09/26/13 10:55

Date Received: 09/28/13 01:00

Matrix: Solid
Percent Solids: 74.2

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Method: 8260C - Volatile Organ Analyte	•	GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00273		0.00273	0.000545	mg/Kg	<del></del>	10/02/13 11:15	10/02/13 19:19	
1,1,1-Trichloroethane	<0.00273		0.00273	0.000396	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,1,2,2-Tetrachloroethane	<0.00273		0.00273	0.000885	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,1,2-Trichloroethane	<0.00273		0.00273	0.000709	mg/Kg	\$	10/02/13 11:15	10/02/13 19:19	
1,1-Dichloroethane	<0.00273		0.00273	0.000665	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
1,1-Dichloroethene	<0.00273		0.00273	0.000668	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
1,1-Dichloropropene	<0.00273		0.00273	0.000774	mg/Kg	\$	10/02/13 11:15	10/02/13 19:19	
1,2,3-Trichlorobenzene	<0.00273		0.00273	0.000579	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,2,3-Trichloropropane	<0.00273		0.00273	0.000555	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
1,2,4-Trichlorobenzene	<0.00273		0.00273	0.000332	mg/Kg	\$	10/02/13 11:15	10/02/13 19:19	
1,2,4-Trimethylbenzene	<0.00273		0.00273	0.00105	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,2-Dibromo-3-Chloropropane	< 0.0273		0.0273	0.00273	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
1,2-Dichlorobenzene	<0.00273		0.00273	0.000426	mg/Kg	φ.	10/02/13 11:15	10/02/13 19:19	
1,2-Dichloroethane	<0.00273		0.00273	0.000274	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,2-Dichloropropane	<0.00273		0.00273	0.00273	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,3,5-Trimethylbenzene	<0.00273		0.00273	0.000351	mg/Kg	\$	10/02/13 11:15	10/02/13 19:19	
1,3-Dichlorobenzene	<0.00273		0.00273	0.000280	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,3-Dichloropropane	<0.00273		0.00273	0.000327	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,4-Dichlorobenzene	<0.00273		0.00273	0.000764	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
1,4-Dioxane	<0.273		0.273	0.0263	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
2,2-Dichloropropane	<0.00273		0.00273	0.000927	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
2-Butanone (MEK)	0.0286	*	0.0273	0.00200	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
2-Chlorotoluene	<0.00273		0.00273	0.000358	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
2-Hexanone	< 0.0273		0.0273	0.00273	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
4-Chlorotoluene	<0.00273		0.00273	0.000644	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
4-Isopropyltoluene	<0.00273		0.00273	0.000437	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
4-Methyl-2-pentanone (MIBK)	<0.0273		0.0273	0.00179	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Acetone	0.0965	<b>J</b>	0.273	0.00459	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Benzene	0.00156	J	0.00273	0.000267	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Bromobenzene	<0.00273		0.00273	0.000960	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Analyte

PCB-1016

Client Sample ID: WCSB-1 (7-8)

Lab Sample ID: 480-46783-21 Date Collected: 09/26/13 10:55 Matrix: Solid

Date Received: 09/28/13 01:00 Percent Solids: 74.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Bromoform	<0.00273		0.00273	0.00273	mg/Kg	<u> </u>	10/02/13 11:15	10/02/13 19:19	
Bromomethane	<0.00545		0.00545	0.000491	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Carbon disulfide	0.00822		0.00273	0.00273	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Carbon tetrachloride	<0.00273		0.00273	0.000528	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Chlorobenzene	<0.00273		0.00273	0.000720	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
Chlorobromomethane	<0.00273		0.00273	0.000394	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
Chlorodibromomethane	<0.00273		0.00273	0.000698	mg/Kg	*	10/02/13 11:15	10/02/13 19:19	
Chloroethane	< 0.00545		0.00545	0.00123	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Chloroform	<0.00273		0.00273	0.000337	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Chloromethane	<0.00545		0.00545	0.000329	mg/Kg		10/02/13 11:15	10/02/13 19:19	
cis-1,2-Dichloroethene	< 0.00273		0.00273	0.000698	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
cis-1,3-Dichloropropene	< 0.00273		0.00273	0.000785	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
Dichlorobromomethane	<0.00273		0.00273	0.000731	mg/Kg		10/02/13 11:15	10/02/13 19:19	
Dichlorodifluoromethane	<0.00545		0.00545	0.000450	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Ethyl ether	<0.00273		0.00273	0.00229	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
Ethylbenzene	0.000546		0.00273	0.000376	mg/Kg	· · · · · · · · · · · · · · · · · · ·	10/02/13 11:15	10/02/13 19:19	
Ethylene Dibromide	<0.00273		0.00273	0.000700	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
lexachlorobutadiene	<0.00273		0.00273	0.000639	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
sopropyl ether	<0.00273		0.00273	0.00273	mg/Kg		10/02/13 11:15	10/02/13 19:19	
sopropylbenzene	<0.00273		0.00273	0.000822		₩	10/02/13 11:15	10/02/13 19:19	
Methyl tert-butyl ether	<0.00273		0.00273	0.000536	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Methylene Chloride	<0.00273		0.00273	0.00251	mg/Kg		10/02/13 11:15	10/02/13 19:19	
n-Xylene & p-Xylene	<0.00545		0.00545	0.000916		₽	10/02/13 11:15	10/02/13 19:19	
Naphthalene	0.00993		0.0273	0.000310	mg/Kg		10/02/13 11:15	10/02/13 19:19	
n-Butylbenzene	<0.00273		0.00273	0.000731			10/02/13 11:15	10/02/13 19:19	
N-Propylbenzene	<0.00273		0.00273	0.000474			10/02/13 11:15	10/02/13 19:19	
o-Xylene	<0.00273		0.00273	0.000712		₽	10/02/13 11:15	10/02/13 19:19	
	<0.00273		0.00273			· · · · · · · · · · · · · · · · · · ·			
sec-Butylbenzene	<0.00273		0.00273	0.000474			10/02/13 11:15 10/02/13 11:15	10/02/13 19:19 10/02/13 19:19	
Styrene				0.000273					
Fert-amyl methyl ether	<0.00273		0.00273	0.00140	mg/Kg	· · · · · · · · · · · · · · · · · · ·	10/02/13 11:15	10/02/13 19:19	
ert-butyl ethyl ether	<0.00273		0.00273	0.00240	mg/Kg	₩	10/02/13 11:15	10/02/13 19:19	
ert-Butylbenzene	<0.00273		0.00273	0.000567			10/02/13 11:15	10/02/13 19:19	
etrachloroethene	<0.00273		0.00273	0.000732		<del>.</del> .	10/02/13 11:15	10/02/13 19:19	
etrahydrofuran	<0.0545		0.0545	0.00502		<b>‡</b>	10/02/13 11:15	10/02/13 19:19	
oluene	0.00147	J	0.00273	0.000412		<b>‡</b>	10/02/13 11:15	10/02/13 19:19	
ans-1,2-Dichloroethene	<0.00273		0.00273	0.000563		· · · · ·	10/02/13 11:15	10/02/13 19:19	
rans-1,3-Dichloropropene	<0.00273		0.00273	0.00240		*	10/02/13 11:15	10/02/13 19:19	
Trichloroethene	<0.00273		0.00273	0.00120	0 0	<b>‡</b>	10/02/13 11:15	10/02/13 19:19	
Frichlorofluoromethane	<0.00545		0.00545	0.000516		T Æ	10/02/13 11:15	10/02/13 19:19	
/inyl chloride	<0.00273		0.00273	0.000665		₩	10/02/13 11:15	10/02/13 19:19	
Dibromomethane	<0.00273		0.00273	0.000562	mg/Kg	₽	10/02/13 11:15	10/02/13 19:19	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
oluene-d8 (Surr)	101		70 - 130				10/02/13 11:15	10/02/13 19:19	
,2-Dichloroethane-d4 (Surr)	105		70 - 130				10/02/13 11:15	10/02/13 19:19	
1-Bromofluorobenzene (Surr)	98		70 - 130				10/02/13 11:15	10/02/13 19:19	

TestAmerica Buffalo

Dil Fac

Analyzed

10/03/13 23:51

Prepared

10/01/13 09:24

₩

0.0443

MDL Unit

0.0282 mg/Kg

Result Qualifier

<0.0443

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-1 (7-8)

Lab Sample ID: 480-46783-21 Date Collected: 09/26/13 10:55

Matrix: Solid Percent Solids: 74.2

Date Received: 09/28/13 01:00 Method: 8082 - Polychlorinated Binhanyls (GC/ECD) (Continued)

Analyte	Pocult	Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Allalyte	Result	Qualifier		MIDE	Unit		Frepareu	Allalyzeu	Dii Fac
PCB-1221	<0.0443		0.0443	0.0215	mg/Kg	₩	10/01/13 09:24	10/03/13 23:51	1
PCB-1232	<0.0443		0.0443	0.0188	mg/Kg	₩	10/01/13 09:24	10/03/13 23:51	1
PCB-1242	<0.0443		0.0443	0.0175	mg/Kg	*	10/01/13 09:24	10/03/13 23:51	1
PCB-1248	<0.0443		0.0443	0.0228	mg/Kg	₽	10/01/13 09:24	10/03/13 23:51	1
PCB-1254	<0.0443		0.0443	0.0228	mg/Kg	₩	10/01/13 09:24	10/03/13 23:51	1
PCB-1260	0.0307	J	0.0443	0.0228	mg/Kg	*	10/01/13 09:24	10/03/13 23:51	1
PCB-1262	<0.0443		0.0443	0.0363	mg/Kg	₩	10/01/13 09:24	10/03/13 23:51	1
PCB-1268	<0.0443		0.0443	0.0188	mg/Kg	₩	10/01/13 09:24	10/03/13 23:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene			30 - 150				10/01/13 09:24	10/03/13 23:51	1

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Tetrachloro-m-xylene	67		30 - 150	10/01/13 09:24	10/03/13 23:51	1
	Tetrachloro-m-xylene	74		30 - 150	10/01/13 09:24	10/03/13 23:51	1
	DCB Decachlorobiphenyl	521	X	30 - 150	10/01/13 09:24	10/03/13 23:51	1
	DCB Decachlorobiphenyl	83		30 - 150	10/01/13 09:24	10/03/13 23:51	1
1	<del>-</del>						

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	33.3		6.40	2.56	mg/Kg	<del>-</del>	09/30/13 14:30	10/02/13 19:47	1
C19-C36 Aliphatics	<6.40		6.40	2.56	mg/Kg	₩	09/30/13 14:30	10/02/13 19:47	1
C9-C18 Aliphatics	<6.40		6.40	2.56	mg/Kg	₽	09/30/13 14:30	10/02/13 19:47	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	21.5		6.74	6.74	mg/Kg	<u></u>		10/07/13 10:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	71		40 - 140	09/30/13 14:3	0 10/02/13 19:47	1
2-Bromonaphthalene	110		40 - 140	09/30/13 14:3	0 10/02/13 19:47	1
2-Fluorobiphenyl	124		40 - 140	09/30/13 14:3	0 10/02/13 19:47	1
o-Terphenyl	88		40 - 140	09/30/13 14:3	0 10/02/13 19:47	1

Client Sample ID: WCSB-3 (5-6) Lab Sample ID: 480-46783-22 Date Collected: 09/26/13 12:00

Percent Solids: 89.5 Date Received: 09/28/13 01:00

Analyte	Result Qual	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00303	0.00303	0.000606	mg/Kg	<del>-</del>	10/06/13 23:23	10/07/13 02:48	1
1,1,1-Trichloroethane	<0.00303	0.00303	0.000440	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	1
1,1,2,2-Tetrachloroethane	<0.00303	0.00303	0.000983	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	1
1,1,2-Trichloroethane	<0.00303	0.00303	0.000788	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
1,1-Dichloroethane	<0.00303	0.00303	0.000740	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	1
1,1-Dichloroethene	<0.00303	0.00303	0.000742	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	1
1,1-Dichloropropene	<0.00303	0.00303	0.000861	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
1,2,3-Trichlorobenzene	<0.00303	0.00303	0.000644	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	1
1,2,3-Trichloropropane	<0.00303	0.00303	0.000617	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	1
1,2,4-Trichlorobenzene	<0.00303	0.00303	0.000369	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
1,2,4-Trimethylbenzene	<0.00303	0.00303	0.00116	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	1
1,2-Dibromo-3-Chloropropane	< 0.0303	0.0303	0.00303	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	1
1,2-Dichlorobenzene	<0.00303	0.00303	0.000474	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
1,2-Dichloroethane	<0.00303	0.00303	0.000304	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	1
1,2-Dichloropropane	< 0.00303	0.00303	0.00303	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-22

Matrix: Solid

Percent Solids: 89.5

Client Sample ID: WCSB-3 (5-6)

Date Collected: 09/26/13 12:00 Date Received: 09/28/13 01:00

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,3,5-Trimethylbenzene	<0.00303	0.00303	0.000390	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	
1,3-Dichlorobenzene	<0.00303	0.00303	0.000312	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
1,3-Dichloropropane	<0.00303	0.00303	0.000364	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	
1,4-Dichlorobenzene	<0.00303	0.00303	0.000849	mg/Kg	φ.	10/06/13 23:23	10/07/13 02:48	
1,4-Dioxane	<0.303	0.303	0.0292	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
2,2-Dichloropropane	<0.00303	0.00303	0.00103	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
2-Butanone (MEK)	<0.0303	0.0303	0.00222	mg/Kg	φ.	10/06/13 23:23	10/07/13 02:48	
2-Chlorotoluene	<0.00303	0.00303	0.000398	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
2-Hexanone	<0.0303	0.0303	0.00303	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
4-Chlorotoluene	<0.00303	0.00303	0.000715	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
4-Isopropyltoluene	0.00369	0.00303	0.000486	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	
4-Methyl-2-pentanone (MIBK)	<0.0303	0.0303	0.00199	mg/Kg	☼	10/06/13 23:23	10/07/13 02:48	
Acetone	0.00815 J	0.303	0.00510	mg/Kg	φ.	10/06/13 23:23	10/07/13 02:48	
Benzene	<0.00303	0.00303	0.000297	mg/Kg	≎	10/06/13 23:23	10/07/13 02:48	
Bromobenzene	<0.00303	0.00303	0.00107	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
Bromoform	<0.00303	0.00303	0.00303	mg/Kg	Φ.	10/06/13 23:23	10/07/13 02:48	
Bromomethane	<0.00606	0.00606	0.000546	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
Carbon disulfide	<0.00303	0.00303	0.00303	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
Carbon tetrachloride	<0.00303	0.00303	0.000587	mg/Kg		10/06/13 23:23	10/07/13 02:48	
Chlorobenzene	<0.00303	0.00303	0.000800	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
Chlorobromomethane	<0.00303	0.00303	0.000438	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
Chlorodibromomethane	<0.00303	0.00303	0.000776	mg/Kg	 ф	10/06/13 23:23	10/07/13 02:48	
Chloroethane	<0.00606	0.00606	0.00137	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
Chloroform	<0.00303	0.00303	0.000375		₽	10/06/13 23:23	10/07/13 02:48	
Chloromethane	<0.00606	0.00606	0.000366			10/06/13 23:23	10/07/13 02:48	
cis-1,2-Dichloroethene	<0.00303	0.00303	0.000776		₽	10/06/13 23:23	10/07/13 02:48	
cis-1,3-Dichloropropene	<0.00303	0.00303	0.000873		₽	10/06/13 23:23	10/07/13 02:48	
Dichlorobromomethane	<0.00303	0.00303	0.000812		· · · · · · · · · · ·	10/06/13 23:23	10/07/13 02:48	
Dichlorodifluoromethane	<0.00606	0.00606	0.000501		₽	10/06/13 23:23	10/07/13 02:48	
Ethyl ether	<0.00303	0.00303	0.00255		₽	10/06/13 23:23	10/07/13 02:48	
Ethylbenzene	<0.00303	0.00303	0.000418		 \$	10/06/13 23:23	10/07/13 02:48	
Ethylene Dibromide	<0.00303	0.00303	0.000778		₩	10/06/13 23:23	10/07/13 02:48	
Hexachlorobutadiene	<0.00303	0.00303	0.000710		₽	10/06/13 23:23	10/07/13 02:48	
Isopropyl ether	<0.00303	0.00303		mg/Kg	<del>.</del> .	10/06/13 23:23	10/07/13 02:48	
Isopropylbenzene	<0.00303	0.00303	0.000914		₽	10/06/13 23:23	10/07/13 02:48	
Methyl tert-butyl ether	<0.00303	0.00303		mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	
Methylene Chloride	<0.00303	0.00303	0.00279		φ.	10/06/13 23:23	10/07/13 02:48	
m-Xylene & p-Xylene	<0.00606	0.00606	0.00102		₽	10/06/13 23:23	10/07/13 02:48	
Naphthalene	0.0486	0.0303	0.000102		₽	10/06/13 23:23	10/07/13 02:48	
n-Butylbenzene	<0.00303	0.00303	0.000527			10/06/13 23:23	10/07/13 02:48	
N-Propylbenzene	<0.00303	0.00303	0.000327		₽	10/06/13 23:23	10/07/13 02:48	
o-Xylene	<0.00303	0.00303	0.000792		₽	10/06/13 23:23	10/07/13 02:48	
	<0.00303		0.000792			10/06/13 23:23	10/07/13 02:48	
sec-Butylbenzene Styrene	<0.00303	0.00303 0.00303			₩	10/06/13 23:23	10/07/13 02:48	
Styrene  Tert amyl methyl ether					₩			
Tert-amyl methyl ether	<0.00303	0.00303	0.00155		¥	10/06/13 23:23	10/07/13 02:48	
Tert-butyl ethyl ether	<0.00303	0.00303	0.00267			10/06/13 23:23	10/07/13 02:48	
tert-Butylbenzene	<0.00303	0.00303			<b>₽</b>	10/06/13 23:23	10/07/13 02:48	
Tetrachloroethene	0.00373	0.00303	0.000813	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/26/13 12:00

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-3 (5-6)

TestAmerica Job ID: 480-46783-1

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Lab Sample ID: 480-46783-22

Matrix: Solid
Percent Solids: 89.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00303		0.00303	0.000458	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	1
trans-1,2-Dichloroethene	<0.00303		0.00303	0.000626	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
trans-1,3-Dichloropropene	<0.00303		0.00303	0.00267	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
Trichloroethene	<0.00303		0.00303	0.00133	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
Trichlorofluoromethane	<0.00606		0.00606	0.000573	mg/Kg	₩	10/06/13 23:23	10/07/13 02:48	1
Vinyl chloride	<0.00303		0.00303	0.000740	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
Dibromomethane	<0.00303		0.00303	0.000624	mg/Kg	₽	10/06/13 23:23	10/07/13 02:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130				10/06/13 23:23	10/07/13 02:48	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130				10/06/13 23:23	10/07/13 02:48	1
4-Bromofluorobenzene (Surr)	89		70 - 130				10/06/13 23:23	10/07/13 02:48	1

Client Sample ID: WCSB-3 (7-8)

Date Collected: 09/26/13 11:55 Date Received: 09/28/13 01:00 Lab Sample ID: 480-46783-23

Matrix: Solid Percent Solids: 72.7

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) Analyte Result Qualifier MDL Unit D Prepared Analyzed Dil Fac ₩ 0.344 0.0138 mg/Kg 10/07/13 11:24 C5-C8 Aliphatics (adjusted) 1.20 ₽ C9-C12 Aliphatics (adjusted) < 0.344 0.344 0.0138 mg/Kg 10/07/13 11:24

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0616	J	0.101	0.0202	mg/Kg	<del>-</del>	10/01/13 12:20	10/02/13 18:50	1
Ethylbenzene	0.0281	J	0.101	0.0202	mg/Kg	₩	10/01/13 12:20	10/02/13 18:50	1
Methyl tert-butyl ether	<0.101		0.101	0.0202	mg/Kg	₩	10/01/13 12:20	10/02/13 18:50	1
m-Xylene & p-Xylene	<0.202		0.202	0.0202	mg/Kg	₩	10/01/13 12:20	10/02/13 18:50	1
Naphthalene	0.107	В	0.101	0.0202	mg/Kg	₽	10/01/13 12:20	10/02/13 18:50	1
o-Xylene	<0.101		0.101	0.0202	mg/Kg	₩	10/01/13 12:20	10/02/13 18:50	1
Toluene	0.0306	J	0.101	0.0202	mg/Kg	₽	10/01/13 12:20	10/02/13 18:50	1
C5-C8 Aliphatics (unadjusted)	0.964	В	0.504	0.0202	mg/Kg	₩	10/01/13 12:20	10/02/13 18:50	1
C9-C10 Aromatics	1.12		0.504	0.0202	mg/Kg	₽	10/01/13 12:20	10/02/13 18:50	1
C9-C12 Aliphatics (unadjusted)	0.659	В	0.504	0.0202	mg/Kg	₩	10/01/13 12:20	10/02/13 18:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	87		70 - 130	10/01/13 12:20	10/02/13 18:50	1
2,5-Dibromotoluene (pid)	90		70 - 130	10/01/13 12:20	10/02/13 18:50	1

Method: 8082 - Polychlo	rinated Biphenyls (GC/	ECD)							Dil Fac 1 1 1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0449		0.0449	0.0286	mg/Kg	<del>\</del>	10/01/13 09:24	10/04/13 00:06	1
PCB-1221	<0.0449		0.0449	0.0218	mg/Kg	₩	10/01/13 09:24	10/04/13 00:06	1
PCB-1232	<0.0449		0.0449	0.0190	mg/Kg	₩	10/01/13 09:24	10/04/13 00:06	1
PCB-1242	<0.0449		0.0449	0.0177	mg/Kg	₽	10/01/13 09:24	10/04/13 00:06	1
PCB-1248	<0.0449		0.0449	0.0231	mg/Kg	₩	10/01/13 09:24	10/04/13 00:06	1
PCB-1254	<0.0449		0.0449	0.0231	mg/Kg	₩	10/01/13 09:24	10/04/13 00:06	1
PCB-1260	<0.0449		0.0449	0.0231	mg/Kg	₩.	10/01/13 09:24	10/04/13 00:06	1
PCB-1262	<0.0449		0.0449	0.0367	mg/Kg	₩	10/01/13 09:24	10/04/13 00:06	1
PCB-1268	<0.0449		0.0449	0.0190	mg/Kg	₽	10/01/13 09:24	10/04/13 00:06	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-3 (7-8)

Date Collected: 09/26/13 11:55 Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-23

Matrix: Solid

Percent Solids: 72.7

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70	30 - 150	10/01/13 09:24	10/04/13 00:06	1
Tetrachloro-m-xylene	74	30 - 150	10/01/13 09:24	10/04/13 00:06	1
DCB Decachlorobiphenyl	65	30 - 150	10/01/13 09:24	10/04/13 00:06	1
DCB Decachlorobiphenyl	72	30 - 150	10/01/13 09:24	10/04/13 00:06	1

-	12		00 - 100				10/01/10 03.24	10/04/10 00.00	
Method: MA-EPH - Massachusett	s - Extractable	Petroleum	Hydrocarbons	(GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	5.54	J	6.52	2.61	mg/Kg	<del></del>	09/30/13 14:30	10/02/13 20:16	1
C19-C36 Aliphatics	12.7		6.52	2.61	mg/Kg	₽	09/30/13 14:30	10/02/13 20:16	1
C9-C18 Aliphatics	<6.52		6.52	2.61	mg/Kg	₩	09/30/13 14:30	10/02/13 20:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<6.88		6.88	6.88	mg/Kg	<del>\</del>		10/04/13 10:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	59		40 - 140				09/30/13 14:30	10/02/13 20:16	1
2-Bromonaphthalene	96		40 - 140				09/30/13 14:30	10/02/13 20:16	1
2-Fluorobiphenyl	113		40 - 140				09/30/13 14:30	10/02/13 20:16	1

40 - 140

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Client Sample ID: WCSB-9 (1-2)

Date Collected: 09/26/13 13:20 Date Received: 09/28/13 01:00

o-Terphenyl

Lab Sample ID: 480-46783-24

10/02/13 20:16

09/30/13 14:30

**Matrix: Solid** Percent Solids: 83.6

Method: MA-EPH - Massachuset			•	,			_		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
C11-C22 Aromatics (unadjusted)	237		5.75	2.30	mg/Kg	<del>\</del>	09/30/13 14:30	10/02/13 20:46	
C19-C36 Aliphatics	1940		5.75	2.30	mg/Kg	₽	09/30/13 14:30	10/02/13 20:46	
C9-C18 Aliphatics	180	В	5.75	2.30	mg/Kg	₩	09/30/13 14:30	10/02/13 20:46	
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fa
C11-C22 Aromatics (Adjusted)	119	-	5.98	5.98	mg/Kg	<u> </u>		10/04/13 10:18	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctadecane	- 65		40 140				00/30/13 14:30	10/02/13 20:46	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	65		40 - 140	09/30/13 14:30	10/02/13 20:46	1
2-Bromonaphthalene	105		40 - 140	09/30/13 14:30	10/02/13 20:46	1
2-Fluorobiphenyl	123		40 - 140	09/30/13 14:30	10/02/13 20:46	1
o-Terphenyl	70		40 - 140	09/30/13 14:30	10/02/13 20:46	1

Client Sample ID: WCSB-9 (2.5-3)

Date Collected: 09/26/13 13:25 Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-25

**Matrix: Solid** Percent Solids: 84.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0388		0.0388	0.0247	mg/Kg	<del>\</del>	10/01/13 09:24	10/04/13 00:21	1
PCB-1221	<0.0388		0.0388	0.0188	mg/Kg	₽	10/01/13 09:24	10/04/13 00:21	1
PCB-1232	<0.0388		0.0388	0.0164	mg/Kg	₩	10/01/13 09:24	10/04/13 00:21	1
PCB-1242	<0.0388		0.0388	0.0153	mg/Kg	₽	10/01/13 09:24	10/04/13 00:21	1
PCB-1248	<0.0388		0.0388	0.0200	mg/Kg	₩	10/01/13 09:24	10/04/13 00:21	1
PCB-1254	<0.0388		0.0388	0.0200	mg/Kg	☼	10/01/13 09:24	10/04/13 00:21	1
PCB-1260	0.0408		0.0388	0.0200	mg/Kg	₽	10/01/13 09:24	10/04/13 00:21	1
PCB-1262	<0.0388		0.0388	0.0317	mg/Kg	₩	10/01/13 09:24	10/04/13 00:21	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID: 480-46783-25

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Matrix: Solid Percent Solids: 84.2

Client Sample ID: WCSB-9 (2.5-3)

Date Collected: 09/26/13 13:25 Date Received: 09/28/13 01:00

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued) Analyte Result Qualifier RL PCB-1268 <0.0388 0.0388

MDL Unit D Analyzed Dil Fac Prepared 0.0164 mg/Kg 10/01/13 09:24 10/04/13 00:21

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac Tetrachloro-m-xylene 72 30 - 150 10/01/13 09:24 10/04/13 00:21 77 Tetrachloro-m-xylene 30 - 150 10/01/13 09:24 10/04/13 00:21 DCB Decachlorobiphenyl 104 30 - 150 10/01/13 09:24 10/04/13 00:21

DCB Decachlorobiphenyl 82 30 - 150 10/01/13 09:24 10/04/13 00:21

Method: 6010 - Metals (ICP) Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac ₩ Silver <0.550 0.550 0.220 mg/Kg 09/30/13 14:10 10/01/13 20:29 ₩ **Arsenic** 6.70 1.10 0.440 mg/Kg 09/30/13 14:10 10/01/13 20:29 0.550 0.121 mg/Kg 09/30/13 14:10 10/01/13 20:29 **Barium** 112 Beryllium 1.45 0.220 0.0308 mg/Kg 09/30/13 14:10 10/01/13 20:29 Cadmium 0.695 0.220 0.0330 mg/Kg 09/30/13 14:10 10/01/13 20:29 0.550 0.220 mg/Kg ₩ 09/30/13 14:10 10/01/13 20:29 Chromium 13.6 09/30/13 14:10 10/01/13 20:29 **Nickel** 1.10 0.253 mg/Kg 15.1 Thallium 09/30/13 14:10 10/01/13 20:29 <1.10 1.10 0.330 mg/Kg ₩ 0.550 09/30/13 14:10 10/01/13 20:29 Vanadium 22.0 0.121 mg/Kg Zinc 278 2.75 0.168 mg/Kg 09/30/13 14:10 10/01/13 20:29 Lead 218 0.550 0.264 mg/Kg 09/30/13 14:10 10/01/13 20:29 Selenium 1.00 0.550 0.440 mg/Kg 09/30/13 14:10 10/01/13 20:29 Antimony <0.550 0.550 0.440 mg/Kg 09/30/13 14:10 10/01/13 20:29

Method: 7471A - Mercury (CVAA) Result Qualifier RL MDL Unit D Dil Fac Analyte Prepared Analyzed ₩ 0.113 09/30/13 10:40 Mercury 0.207 0.00919 mg/Kg 09/30/13 12:29

Client Sample ID: WCSB-909 (2.5-3) Lab Sample ID: 480-46783-26

Date Collected: 09/26/13 13:25 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 84.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0390		0.0390	0.0248	mg/Kg	<del>-</del>	10/01/13 09:24	10/04/13 00:36	1
PCB-1221	<0.0390		0.0390	0.0189	mg/Kg	₩	10/01/13 09:24	10/04/13 00:36	1
PCB-1232	<0.0390		0.0390	0.0165	mg/Kg	₩	10/01/13 09:24	10/04/13 00:36	1
PCB-1242	<0.0390		0.0390	0.0154	mg/Kg	\$	10/01/13 09:24	10/04/13 00:36	1
PCB-1248	<0.0390		0.0390	0.0201	mg/Kg	₩	10/01/13 09:24	10/04/13 00:36	1
PCB-1254	<0.0390		0.0390	0.0201	mg/Kg	₽	10/01/13 09:24	10/04/13 00:36	1
PCB-1260	0.0555		0.0390	0.0201	mg/Kg	₩	10/01/13 09:24	10/04/13 00:36	1
PCB-1262	<0.0390		0.0390	0.0319	mg/Kg	₽	10/01/13 09:24	10/04/13 00:36	1
PCB-1268	<0.0390		0.0390	0.0165	mg/Kg	₩	10/01/13 09:24	10/04/13 00:36	1

1/13 00:36	
1/13 00:36 1	
1/13 00:36 1	
1/13 00:36 1	
4	4/13 00:36     1       4/13 00:36     1       4/13 00:36     1       4/13 00:36     1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Client Sample ID: WCSB-10 (2.5-3)

Date Collected: 09/26/13 14:05 Date Received: 09/28/13 01:00

Mercury

Lab Sample ID: 480-46783-27

09/30/13 10:40 09/30/13 12:31

Matrix: Solid

Percent Solids: 93.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.534		0.534	0.213	mg/Kg	<u> </u>	09/30/13 14:10	10/01/13 20:32	1
Arsenic	7.74		1.07	0.427	mg/Kg	₩	09/30/13 14:10	10/01/13 20:32	1
Barium	31.6		0.534	0.117	mg/Kg	₩	09/30/13 14:10	10/01/13 20:32	1
Beryllium	1.93		0.213	0.0299	mg/Kg	₽	09/30/13 14:10	10/01/13 20:32	1
Cadmium	0.348	^	0.213	0.0320	mg/Kg	₽	09/30/13 14:10	10/01/13 20:32	1
Chromium	1.52		0.534	0.213	mg/Kg	₩	09/30/13 14:10	10/01/13 20:32	1
Nickel	3.20		1.07	0.245	mg/Kg	₽	09/30/13 14:10	10/01/13 20:32	1
Thallium	<1.07		1.07	0.320	mg/Kg	₩	09/30/13 14:10	10/01/13 20:32	1
Vanadium	2.32		0.534	0.117	mg/Kg	₽	09/30/13 14:10	10/01/13 20:32	1
Zinc	163	В	2.67	0.163	mg/Kg	₽	09/30/13 14:10	10/01/13 20:32	1
Lead	356		0.534	0.256	mg/Kg	₽	09/30/13 14:10	10/01/13 20:32	1
Selenium	0.706	^	0.534	0.427	mg/Kg	₽	09/30/13 14:10	10/01/13 20:32	1
Antimony	<0.534	۸	0.534	0.427	mg/Kg	\$	09/30/13 14:10	10/01/13 20:32	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

0.102

0.00828 mg/Kg

0.0769 J

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)	
		TOL	12DCE	BFB	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	
480-46783-1	WCSB-11 (1-2)	103	104	93	
480-46783-4	WCSB-7 (4-5)	98	101	95	
480-46783-5	WCSB-7 (7.5-8)	101	94	114	
480-46783-6	WCSB-8 (2-2.5)	99	99	101	
480-46783-6 - DL	WCSB-8 (2-2.5)	99	97	103	
480-46783-8	WCSB-8 (7-8)	99	96	115	
480-46783-10	WCSB-6 (4-5)	102	95	115	
180-46783-11	WCSB-6 (8-9)	98	99	112	
480-46783-12	WCSB-5 (0.5-1.5)	95	97	100	
180-46783-12 - DL	WCSB-5 (0.5-1.5)	96	98	100	
480-46783-13	WCSB-5 (5-6)	94	96	98	
480-46783-13 - DL	WCSB-5 (5-6)	96	96	98	
480-46783-15	TB-09252013	100	103	98	
480-46783-16	WCSB-4 (2.5-3)	86	119	92	
180-46783-17	WCSB-4 (6-7)	101	94	116	
480-46783-18	WCSB-2 (14-15)	97	99	102	
180-46783-19	WCSB-1 (1-2)	96	111	95	
180-46783-20	WCSB-1 (2.5-3)	95	97	100	
180-46783-21	WCSB-1 (7-8)	101	105	98	
180-46783-22	WCSB-3 (5-6)	99	112	89	
_CS 480-142036/6	Lab Control Sample	100	93	120	
CS 480-142288/4	Lab Control Sample	98	101	99	
_CS 480-142564/10-A	Lab Control Sample	96	104	98	
_CS 480-142564/1-A	Lab Control Sample	97	101	101	
_CS 480-143062/7	Lab Control Sample	99	109	89	
LCSD 480-142036/7	Lab Control Sample Dup	101	93	119	
_CSD 480-142288/5	Lab Control Sample Dup	100	101	99	
CSD 480-142564/11-A	Lab Control Sample Dup	97	101	100	
_CSD 480-142564/2-A	Lab Control Sample Dup	98	100	104	
LCSD 480-143062/8	Lab Control Sample Dup	99	108	88	
MB 480-142036/8	Method Blank	100	90	116	
MB 480-142288/6	Method Blank	100	102	97	
MB 480-142564/12-A	Method Blank	98	98	100	
MB 480-142564/3-A	Method Blank	97	99	98	
MB 480-143062/9	Method Blank	99	106	85	

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		25DBT2	25DBT1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
480-46783-1	WCSB-11 (1-2)	75	78	
480-46783-4	WCSB-7 (4-5)	88	87	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		25DBT2	25DBT1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
480-46783-6	WCSB-8 (2-2.5)	90	90	
480-46783-8	WCSB-8 (7-8)	84	84	
480-46783-11	WCSB-6 (8-9)	86	88	
480-46783-13	WCSB-5 (5-6)	90	93	
480-46783-16	WCSB-4 (2.5-3)	93	93	
480-46783-23	WCSB-3 (7-8)	87	90	
LCS 480-142077/2-A	Lab Control Sample	87	88	
LCS 480-142333/2-A	Lab Control Sample	87	91	
LCS 480-142561/2-A	Lab Control Sample	86	90	
LCSD 480-142077/3-A	Lab Control Sample Dup	89	90	
LCSD 480-142333/3-A	Lab Control Sample Dup	89	92	
LCSD 480-142561/3-A	Lab Control Sample Dup	86	88	
MB 480-142077/1-A	Method Blank	87	89	
MB 480-142333/1-A	Method Blank	84	87	
MB 480-142561/1-A	Method Blank	79	83	

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	ogate Recovery (Acceptance Limits	)
		TCX1	TCX2	DCB1	DCB2	
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)	
480-46783-2	WCSB-11 (2.5-3)	0 X	0 X	197 X	120	
480-46783-3	WCSB-7 (2.5-3)	57	64	280 X	46	
480-46783-7	WCSB-8 (2.5-3)	59	67	141	77	
480-46783-8	WCSB-8 (7-8)	68	67	58	64	
480-46783-9	WCSB-6 (2.5-3)	71	73	69	84	
480-46783-12	WCSB-5 (0.5-1.5)	0 X	0 X	0 X	0 X	
480-46783-14	WCSB-5 (2.5-3)	0 X	0 X	0 X	0 X	
480-46783-14 MS	WCSB-5 (2.5-3)	0 X	0 X	0 X	0 X	
480-46783-14 MSD	WCSB-5 (2.5-3)	0 X	0 X	0 X	0 X	
480-46783-16	WCSB-4 (2.5-3)	62	75	66	78	
480-46783-17	WCSB-4 (6-7)	150	71	67	77	
480-46783-19	WCSB-1 (1-2)	73	81	91	79	
480-46783-20	WCSB-1 (2.5-3)	0 X	0 X	0 X	0 X	
480-46783-21	WCSB-1 (7-8)	67	74	521 X	83	
480-46783-23	WCSB-3 (7-8)	70	74	65	72	
480-46783-25	WCSB-9 (2.5-3)	72	77	104	82	
480-46783-26	WCSB-909 (2.5-3)	68	74	100	84	
LCS 240-103632/18-A	Lab Control Sample	83	103	86	96	
LCS 240-103651/24-A	Lab Control Sample	85	87	67	212 X	
LCSD 240-103632/19-A	Lab Control Sample Dup	90	93	84	92	
LCSD 240-103651/25-A	Lab Control Sample Dup	88	92	64	80	
MB 240-103632/17-A	Method Blank	76	104	87	98	
MB 240-103651/23-A	Method Blank	82	222 X	85	91	

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## **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

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TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rogate Recovery (Acc	eptance Limits)
		1COD2	2BN1	FBP1	OTPH1	
Lab Sample ID	Client Sample ID	(40-140)	(40-140)	(40-140)	(40-140)	
480-46783-1	WCSB-11 (1-2)	53	70	83	40	
480-46783-4	WCSB-7 (4-5)	83	95	110	88	
480-46783-6	WCSB-8 (2-2.5)	49	109	125	48	
180-46783-8	WCSB-8 (7-8)	69	104	117	74	
480-46783-11	WCSB-6 (8-9)	70	98	111	86	
480-46783-12	WCSB-5 (0.5-1.5)	0 X	78	107	84	
180-46783-13	WCSB-5 (5-6)	84	106	131	87	
180-46783-16	WCSB-4 (2.5-3)	77	99	114	90	
180-46783-17	WCSB-4 (6-7)	70	97	112	80	
180-46783-19	WCSB-1 (1-2)	48	104	122	53	
180-46783-20	WCSB-1 (2.5-3)	65	98	113	79	
180-46783-21	WCSB-1 (7-8)	71	110	124	88	
180-46783-23	WCSB-3 (7-8)	59	96	113	72	
180-46783-24	WCSB-9 (1-2)	65	105	123	70	
LCS 480-141819/2-B	Lab Control Sample	61	99	113	94	
_CSD 480-141819/3-B	Lab Control Sample Dup	62	99	107	91	
MB 480-141819/1-B	Method Blank	56	95	107	92	

#### Surrogate Legend

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

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## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

#### Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-142036/8

Matrix: Solid

Client Sample ID: Method Blank **Prep Type: Total/NA** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00250		0.00250	0.000500	mg/Kg			10/01/13 13:43	
1,1,1-Trichloroethane	<0.00250		0.00250	0.000363	mg/Kg			10/01/13 13:43	•
1,1,2,2-Tetrachloroethane	<0.00250		0.00250	0.000811	mg/Kg			10/01/13 13:43	
1,1,2-Trichloroethane	<0.00250		0.00250	0.000650	mg/Kg			10/01/13 13:43	
1,1-Dichloroethane	<0.00250		0.00250	0.000610	mg/Kg			10/01/13 13:43	•
1,1-Dichloroethene	<0.00250		0.00250	0.000612	mg/Kg			10/01/13 13:43	•
1,1-Dichloropropene	<0.00250		0.00250	0.000710	mg/Kg			10/01/13 13:43	
1,2,3-Trichlorobenzene	< 0.00250		0.00250	0.000531	mg/Kg			10/01/13 13:43	
1,2,3-Trichloropropane	< 0.00250		0.00250	0.000509	mg/Kg			10/01/13 13:43	
1,2,4-Trichlorobenzene	<0.00250		0.00250	0.000304	mg/Kg			10/01/13 13:43	
1,2,4-Trimethylbenzene	<0.00250		0.00250	0.000960	mg/Kg			10/01/13 13:43	
1,2-Dibromo-3-Chloropropane	<0.0250		0.0250	0.00250	mg/Kg			10/01/13 13:43	
1,2-Dichlorobenzene	<0.00250		0.00250	0.000391	mg/Kg			10/01/13 13:43	• • • • • • • •
1,2-Dichloroethane	<0.00250		0.00250	0.000251	mg/Kg			10/01/13 13:43	
1,2-Dichloropropane	<0.00250		0.00250	0.00250	mg/Kg			10/01/13 13:43	
1,3,5-Trimethylbenzene	<0.00250		0.00250	0.000322				10/01/13 13:43	
1,3-Dichlorobenzene	<0.00250		0.00250	0.000257				10/01/13 13:43	
1,3-Dichloropropane	<0.00250		0.00250	0.000300				10/01/13 13:43	
1,4-Dichlorobenzene	<0.00250		0.00250	0.000700	mg/Kg			10/01/13 13:43	· · · · · .
1,4-Dioxane	<0.250		0.250	0.0241	mg/Kg			10/01/13 13:43	
2,2-Dichloropropane	<0.00250		0.00250	0.000850				10/01/13 13:43	
2-Butanone (MEK)	<0.0250		0.0250	0.00183	0 0			10/01/13 13:43	
2-Chlorotoluene	< 0.00250		0.00250	0.000328	mg/Kg			10/01/13 13:43	
2-Hexanone	<0.0250		0.0250	0.00250				10/01/13 13:43	
4-Chlorotoluene	<0.00250		0.00250	0.000590				10/01/13 13:43	,
4-Isopropyltoluene	< 0.00250		0.00250	0.000401	mg/Kg			10/01/13 13:43	
4-Methyl-2-pentanone (MIBK)	<0.0250		0.0250	0.00164				10/01/13 13:43	
Acetone	<0.250		0.250	0.00421				10/01/13 13:43	· · · · · .
Benzene	<0.00250		0.00250	0.000421				10/01/13 13:43	
Bromobenzene	<0.00250		0.00250	0.000243				10/01/13 13:43	
Bromoform	<0.00250		0.00250	0.00250				10/01/13 13:43	· · · · · .
Bromomethane	<0.00500		0.00230	0.00250				10/01/13 13:43	
Carbon disulfide									
	<0.00250		0.00250	0.00250				10/01/13 13:43	
Carbon tetrachloride	<0.00250		0.00250	0.000484				10/01/13 13:43	•
Chlorobenzene	<0.00250		0.00250	0.000660				10/01/13 13:43	•
Chlorobromomethane	<0.00250		0.00250	0.000361				10/01/13 13:43	
Chlorodibromomethane	<0.00250		0.00250	0.000640				10/01/13 13:43	•
Chloroethane	<0.00500		0.00500	0.00113				10/01/13 13:43	•
Chloroform	<0.00250		0.00250	0.000309				10/01/13 13:43	
Chloromethane	<0.00500		0.00500	0.000302				10/01/13 13:43	,
cis-1,2-Dichloroethene	<0.00250		0.00250	0.000640				10/01/13 13:43	,
cis-1,3-Dichloropropene	<0.00250		0.00250	0.000720				10/01/13 13:43	
Dichlorobromomethane	<0.00250		0.00250	0.000670				10/01/13 13:43	,
Dichlorodifluoromethane	<0.00500		0.00500	0.000413	mg/Kg			10/01/13 13:43	,
Ethyl ether	<0.00250		0.00250	0.00210	mg/Kg			10/01/13 13:43	
Ethylbenzene	<0.00250		0.00250	0.000345	mg/Kg			10/01/13 13:43	
Ethylene Dibromide	<0.00250		0.00250	0.000642	mg/Kg			10/01/13 13:43	
Hexachlorobutadiene	< 0.00250		0.00250	0.000586	mg/Kg			10/01/13 13:43	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

MR MR

Lab Sample ID: MB 480-142036/8

**Matrix: Solid** 

Analysis Batch: 142036

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB						
Analyte	Result	Qualifier RI	. MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<0.00250	0.00250	0.00250	mg/Kg			10/01/13 13:43	1
Isopropylbenzene	<0.00250	0.00250	0.000754	mg/Kg			10/01/13 13:43	1
Methyl tert-butyl ether	<0.00250	0.00250	0.000491	mg/Kg			10/01/13 13:43	1
Methylene Chloride	<0.00250	0.00250	0.00230	mg/Kg			10/01/13 13:43	1
m-Xylene & p-Xylene	<0.00500	0.00500	0.000840	mg/Kg			10/01/13 13:43	1
Naphthalene	<0.0250	0.0250	0.000670	mg/Kg			10/01/13 13:43	1
n-Butylbenzene	<0.00250	0.00250	0.000435	mg/Kg			10/01/13 13:43	1
N-Propylbenzene	<0.00250	0.00250	0.000400	mg/Kg			10/01/13 13:43	1
o-Xylene	<0.00250	0.00250	0.000653	mg/Kg			10/01/13 13:43	1
sec-Butylbenzene	<0.00250	0.00250	0.000435	mg/Kg			10/01/13 13:43	1
Styrene	<0.00250	0.00250	0.000250	mg/Kg			10/01/13 13:43	1
Tert-amyl methyl ether	<0.00250	0.00250	0.00128	mg/Kg			10/01/13 13:43	1
Tert-butyl ethyl ether	<0.00250	0.00250	0.00220	mg/Kg			10/01/13 13:43	1
tert-Butylbenzene	<0.00250	0.00250	0.000520	mg/Kg			10/01/13 13:43	1
Tetrachloroethene	<0.00250	0.00250	0.000671	mg/Kg			10/01/13 13:43	1
Tetrahydrofuran	<0.0500	0.0500	0.00460	mg/Kg			10/01/13 13:43	1
Toluene	<0.00250	0.00250	0.000378	mg/Kg			10/01/13 13:43	1
trans-1,2-Dichloroethene	<0.00250	0.00250	0.000516	mg/Kg			10/01/13 13:43	1
trans-1,3-Dichloropropene	<0.00250	0.00250	0.00220	mg/Kg			10/01/13 13:43	1
Trichloroethene	<0.00250	0.00250	0.00110	mg/Kg			10/01/13 13:43	1
Trichlorofluoromethane	<0.00500	0.00500	0.000473	mg/Kg			10/01/13 13:43	1
Vinyl chloride	<0.00250	0.00250	0.000610	mg/Kg			10/01/13 13:43	1
Dibromomethane	< 0.00250	0.00250	0.000515	mg/Kg			10/01/13 13:43	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100	70 - 130		10/01/13 13:43	1
1,2-Dichloroethane-d4 (Surr)	90	70 - 130		10/01/13 13:43	1
4-Bromofluorobenzene (Surr)	116	70 - 130		10/01/13 13:43	1

Lab Sample ID: LCS 480-142036/6

**Matrix: Solid** 

Analysis Batch: 142036

Client Sample ID: Lab	Control Sample
Prep	Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	0.0500	0.06068		mg/Kg		121	70 - 130
1,1,1-Trichloroethane	0.0500	0.05196		mg/Kg		104	70 _ 130
1,1,2,2-Tetrachloroethane	0.0500	0.04747		mg/Kg		95	70 _ 130
1,1,2-Trichloroethane	0.0500	0.04891		mg/Kg		98	70 - 130
1,1-Dichloroethane	0.0500	0.04649		mg/Kg		93	70 - 130
1,1-Dichloroethene	0.0500	0.04547		mg/Kg		91	70 - 130
1,1-Dichloropropene	0.0500	0.04561		mg/Kg		91	70 - 130
1,2,3-Trichlorobenzene	0.0500	0.06236		mg/Kg		125	70 _ 130
1,2,3-Trichloropropane	0.0500	0.05268		mg/Kg		105	70 - 130
1,2,4-Trichlorobenzene	0.0500	0.05931		mg/Kg		119	70 - 130
1,2,4-Trimethylbenzene	0.0500	0.04897		mg/Kg		98	70 - 130
1,2-Dibromo-3-Chloropropane	0.0500	0.04791		mg/Kg		96	70 - 130
1,2-Dichlorobenzene	0.0500	0.05327		mg/Kg		107	70 - 130
1,2-Dichloroethane	0.0500	0.04865		mg/Kg		97	70 - 130

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## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Lab Sample ID: LCS 480-142036/6

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

**Matrix: Solid** 

Analysis Batch: 142036							1100191	be: Total/NA
•	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	_ D	%Rec	Limits	
1,2-Dichloropropane	0.0500	0.04562		mg/Kg		91	70 - 130	
1,3,5-Trimethylbenzene	0.0500	0.05039		mg/Kg		101	70 - 130	
1,3-Dichlorobenzene	0.0500	0.05173		mg/Kg		103	70 - 130	
1,3-Dichloropropane	0.0500	0.05031		mg/Kg		101	70 - 130	
1,4-Dichlorobenzene	0.0500	0.04955		mg/Kg		99	70 - 130	
1,4-Dioxane	2.00	1.915		mg/Kg		96	70 - 130	
2,2-Dichloropropane	0.0500	0.04993		mg/Kg		100	70 - 130	
2-Butanone (MEK)	0.250	0.2957		mg/Kg		118	70 - 130	
2-Chlorotoluene	0.0500	0.05127		mg/Kg		103	70 - 130	
2-Hexanone	0.250	0.2300		mg/Kg		92	70 - 130	
4-Chlorotoluene	0.0500	0.05434		mg/Kg		109	70 - 130	
4-Isopropyltoluene	0.0500	0.05206		mg/Kg		104	70 - 130	
4-Methyl-2-pentanone (MIBK)	0.250	0.2296		mg/Kg		92	70 - 130	
Acetone	0.250	0.2328		mg/Kg		93	70 - 130	
Benzene	0.0500	0.04632		mg/Kg		93	70 - 130	
Bromobenzene	0.0500	0.05173		mg/Kg		103	70 - 130	
Bromoform	0.0500	0.05374		mg/Kg		107	70 - 130	
Bromomethane	0.0500	0.04778		mg/Kg		96	70 - 130	
Carbon disulfide	0.0500	0.04859		mg/Kg		97	70 - 130	
Carbon tetrachloride	0.0500	0.05663		mg/Kg		113	70 - 130	
Chlorobenzene	0.0500	0.05000		mg/Kg		104	70 - 130	
Chlorobromomethane	0.0500	0.05102		mg/Kg		103	70 - 130 70 - 130	
Chlorodibromomethane	0.0500	0.05173		mg/Kg		108	70 - 130	
Chloroethane	0.0500	0.04242		mg/Kg		85	70 <sub>-</sub> 130	
Chloroform	0.0500	0.04242		mg/Kg		96	70 <sub>-</sub> 130	
Chloromethane	0.0500	0.03516				70	70 - 130	
	0.0500	0.03310		mg/Kg		95	70 - 130 70 - 130	
cis-1,2-Dichloroethene	0.0500	0.04728		mg/Kg		103		
cis-1,3-Dichloropropene				mg/Kg			70 _ 130	
Dichlorobromomethane	0.0500	0.05412		mg/Kg		108	70 <sub>-</sub> 130	
Dichlorodifluoromethane	0.100	0.08419		mg/Kg		84	70 - 130	
Ethyl ether	0.0500	0.03766		mg/Kg		75	70 - 130	
Ethylbenzene	0.0500	0.05099		mg/Kg		102	70 - 130	
Ethylene Dibromide	0.0500	0.05392		mg/Kg		108	70 - 130	
Hexachlorobutadiene	0.0500	0.05780		mg/Kg		116	70 - 130	
Isopropyl ether	0.0500	0.04282		mg/Kg		86	70 - 130	
Isopropylbenzene	0.0500	0.04938		mg/Kg		99	70 - 130	
Methyl tert-butyl ether	0.0500	0.04624		mg/Kg		92	70 - 130	
Methylene Chloride	0.0500	0.04288		mg/Kg		86	70 - 130	
m-Xylene & p-Xylene	0.100	0.1042		mg/Kg		104	70 - 130	
Naphthalene	0.0500	0.05309		mg/Kg		106	70 - 130	
n-Butylbenzene	0.0500	0.05007		mg/Kg		100	70 - 130	
N-Propylbenzene	0.0500	0.04647		mg/Kg		93	70 - 130	
o-Xylene	0.0500	0.05239		mg/Kg		105	70 - 130	
sec-Butylbenzene	0.0500	0.05026		mg/Kg		101	70 - 130	
Styrene	0.0500	0.05342		mg/Kg		107	70 - 130	
Tert-amyl methyl ether	0.0500	0.04842		mg/Kg		97	70 - 130	
Tert-butyl ethyl ether	0.0500	0.04554		mg/Kg		91	70 - 130	
tert-Butylbenzene	0.0500	0.05111		mg/Kg		102	70 - 130	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-142036/6

**Matrix: Solid** 

Analysis Batch: 142036

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	0.0500	0.06682	*	mg/Kg		134	70 - 130	_
Tetrahydrofuran	0.250	0.2026		mg/Kg		81	70 - 130	
Toluene	0.0500	0.04996		mg/Kg		100	70 - 130	
trans-1,2-Dichloroethene	0.0500	0.04717		mg/Kg		94	70 - 130	
trans-1,3-Dichloropropene	0.0500	0.05414		mg/Kg		108	70 - 130	
Trichloroethene	0.0500	0.04741		mg/Kg		95	70 - 130	
Trichlorofluoromethane	0.0500	0.04952		mg/Kg		99	70 - 130	
Vinyl chloride	0.0500	0.04307		mg/Kg		86	70 - 130	
Dibromomethane	0.0500	0.05026		mg/Kg		101	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	120		70 - 130

Lab Sample ID: LCSD 480-142036/7

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 142036									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	_ D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	0.0500	0.05921		mg/Kg		118	70 - 130	2	20
1,1,1-Trichloroethane	0.0500	0.04950		mg/Kg		99	70 - 130	5	20
1,1,2,2-Tetrachloroethane	0.0500	0.04823		mg/Kg		96	70 - 130	2	20
1,1,2-Trichloroethane	0.0500	0.04997		mg/Kg		100	70 - 130	2	20
1,1-Dichloroethane	0.0500	0.04531		mg/Kg		91	70 - 130	3	20
1,1-Dichloroethene	0.0500	0.04311		mg/Kg		86	70 - 130	5	20
1,1-Dichloropropene	0.0500	0.04450		mg/Kg		89	70 - 130	2	20
1,2,3-Trichlorobenzene	0.0500	0.05871		mg/Kg		117	70 - 130	6	20
1,2,3-Trichloropropane	0.0500	0.05465		mg/Kg		109	70 - 130	4	20
1,2,4-Trichlorobenzene	0.0500	0.05505		mg/Kg		110	70 - 130	7	20
1,2,4-Trimethylbenzene	0.0500	0.04622		mg/Kg		92	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	0.0500	0.05013		mg/Kg		100	70 - 130	5	20
1,2-Dichlorobenzene	0.0500	0.05113		mg/Kg		102	70 - 130	4	20
1,2-Dichloroethane	0.0500	0.04806		mg/Kg		96	70 - 130	1	20
1,2-Dichloropropane	0.0500	0.04434		mg/Kg		89	70 - 130	3	20
1,3,5-Trimethylbenzene	0.0500	0.04823		mg/Kg		96	70 - 130	4	20
1,3-Dichlorobenzene	0.0500	0.04953		mg/Kg		99	70 - 130	4	20
1,3-Dichloropropane	0.0500	0.05048		mg/Kg		101	70 - 130	0	20
1,4-Dichlorobenzene	0.0500	0.04780		mg/Kg		96	70 - 130	4	20
1,4-Dioxane	2.00	1.640		mg/Kg		82	70 - 130	15	20
2,2-Dichloropropane	0.0500	0.04789		mg/Kg		96	70 - 130	4	20
2-Butanone (MEK)	0.250	0.3152		mg/Kg		126	70 - 130	6	20
2-Chlorotoluene	0.0500	0.04889		mg/Kg		98	70 - 130	5	20
2-Hexanone	0.250	0.2461		mg/Kg		98	70 - 130	7	20
4-Chlorotoluene	0.0500	0.04831		mg/Kg		97	70 - 130	12	20
4-Isopropyltoluene	0.0500	0.04948		mg/Kg		99	70 - 130	5	20
4-Methyl-2-pentanone (MIBK)	0.250	0.2444		mg/Kg		98	70 - 130	6	20
Acetone	0.250	0.2617		mg/Kg		105	70 - 130	12	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-142036/7

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RI
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lir
Benzene	0.0500	0.04537		mg/Kg		91	70 - 130	2	
Bromobenzene	0.0500	0.05034		mg/Kg		101	70 - 130	3	
Bromoform	0.0500	0.05515		mg/Kg		110	70 - 130	3	
Bromomethane	0.0500	0.04602		mg/Kg		92	70 - 130	4	
Carbon disulfide	0.0500	0.04589		mg/Kg		92	70 - 130	6	
Carbon tetrachloride	0.0500	0.05381		mg/Kg		108	70 - 130	5	
Chlorobenzene	0.0500	0.05101		mg/Kg		102	70 - 130	2	
Chlorobromomethane	0.0500	0.05130		mg/Kg		103	70 - 130	1	
Chlorodibromomethane	0.0500	0.05336		mg/Kg		107	70 - 130	1	
Chloroethane	0.0500	0.04161		mg/Kg		83	70 - 130	2	
Chloroform	0.0500	0.04707		mg/Kg		94	70 - 130	2	
Chloromethane	0.0500	0.03351	*	mg/Kg		67	70 - 130	5	
cis-1,2-Dichloroethene	0.0500	0.04635		mg/Kg		93	70 - 130	2	
cis-1,3-Dichloropropene	0.0500	0.05180		mg/Kg		104	70 - 130	1	
Dichlorobromomethane	0.0500	0.05384		mg/Kg		108	70 - 130	1	
Dichlorodifluoromethane	0.100	0.07644		mg/Kg		76	70 - 130	10	
Ethyl ether	0.0500	0.03956		mg/Kg		79	70 - 130	5	
Ethylbenzene	0.0500	0.05016		mg/Kg		100	70 - 130	2	
Ethylene Dibromide	0.0500	0.05449		mg/Kg		109	70 - 130	1	
Hexachlorobutadiene	0.0500	0.05179		mg/Kg		104	70 - 130 70 <sub>-</sub> 130	11	
sopropyl ether	0.0500	0.04264		mg/Kg		85	70 - 130	0	
sopropylbenzene	0.0500	0.04768		mg/Kg		95	70 - 130 70 <sub>-</sub> 130	3	
Methyl tert-butyl ether	0.0500	0.04708		mg/Kg		92	70 - 130 70 - 130	1	
Methylene Chloride	0.0500	0.04152				83	70 - 130		
•	0.000	0.1012		mg/Kg			70 - 130 70 - 130	3	
n-Xylene & p-Xylene				mg/Kg		101			
Naphthalene	0.0500	0.05265		mg/Kg		105	70 - 130		
n-Butylbenzene	0.0500	0.04700		mg/Kg		94	70 <sub>-</sub> 130	6	
N-Propylbenzene	0.0500	0.04455		mg/Kg		89	70 <sub>-</sub> 130	4	
-Xylene	0.0500	0.05071		mg/Kg		101	70 - 130	3	
sec-Butylbenzene	0.0500	0.04732		mg/Kg		95	70 - 130	6	
Styrene	0.0500	0.05213		mg/Kg		104	70 - 130	2	
ert-amyl methyl ether	0.0500	0.04879		mg/Kg		98	70 - 130	1	
ert-butyl ethyl ether	0.0500	0.04612		mg/Kg		92	70 - 130	1	
ert-Butylbenzene	0.0500	0.04943		mg/Kg		99	70 - 130	3	
Tetrachloroethene	0.0500	0.06666	*	mg/Kg		133	70 - 130	0	
Tetrahydrofuran	0.250	0.2142		mg/Kg		86	70 - 130	6	
Toluene	0.0500	0.04874		mg/Kg		97	70 - 130	2	
rans-1,2-Dichloroethene	0.0500	0.04554		mg/Kg		91	70 - 130	4	
rans-1,3-Dichloropropene	0.0500	0.05448		mg/Kg		109	70 - 130	1	
Frichloroethene	0.0500	0.04605		mg/Kg		92	70 - 130	3	
Frichlorofluoromethane	0.0500	0.04728		mg/Kg		95	70 - 130	5	
/inyl chloride	0.0500	0.04049		mg/Kg		81	70 - 130	6	
Dibromomethane	0.0500	0.05114		mg/Kg		102	70 - 130	2	

Surrogate	%Recovery C	ualifier)	Limits
Toluene-d8 (Surr)	101		70 - 130
1 2-Dichloroethane-d4 (Surr)	9.3		70 - 130

119 70 - 130 4-Bromofluorobenzene (Surr)

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-142288/6

Matrix: Solid

Analysis Batch: 142288

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Analyte	Result	Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00250		0.00250	0.000500	mg/Kg	— <u>-</u> -	11000100	10/02/13 13:16	
1,1,1-Trichloroethane	<0.00250		0.00250	0.000363	mg/Kg			10/02/13 13:16	
1,1,2,2-Tetrachloroethane	<0.00250		0.00250	0.000811				10/02/13 13:16	
1,1,2-Trichloroethane	<0.00250		0.00250	0.000650				10/02/13 13:16	
1,1-Dichloroethane	<0.00250		0.00250	0.000610				10/02/13 13:16	
1,1-Dichloroethene	<0.00250		0.00250	0.000612				10/02/13 13:16	
1,1-Dichloropropene	<0.00250		0.00250	0.000710				10/02/13 13:16	
1,2,3-Trichlorobenzene	<0.00250		0.00250	0.000531				10/02/13 13:16	
1,2,3-Trichloropropane	<0.00250		0.00250	0.000509				10/02/13 13:16	
1,2,4-Trichlorobenzene	<0.00250		0.00250	0.000304				10/02/13 13:16	
1,2,4-Trimethylbenzene	<0.00250		0.00250	0.000960				10/02/13 13:16	
1,2-Dibromo-3-Chloropropane	<0.0250		0.0250	0.00250				10/02/13 13:16	
1,2-Dichlorobenzene	<0.00250		0.00250	0.000391				10/02/13 13:16	
1,2-Dichloroethane	<0.00250		0.00250	0.000251				10/02/13 13:16	
1,2-Dichloropropane	<0.00250		0.00250	0.00250				10/02/13 13:16	
1,3,5-Trimethylbenzene	<0.00250		0.00250	0.000322				10/02/13 13:16	
1,3-Dichlorobenzene	<0.00250		0.00250	0.000257				10/02/13 13:16	
1,3-Dichloropropane	<0.00250		0.00250	0.000300				10/02/13 13:16	
1,4-Dichlorobenzene	<0.00250		0.00250	0.000700				10/02/13 13:16	
1,4-Dioxane	<0.250		0.250	0.0241	mg/Kg			10/02/13 13:16	
2,2-Dichloropropane	<0.00250		0.00250	0.000850				10/02/13 13:16	
2-Butanone (MEK)	<0.0250		0.0250	0.00183				10/02/13 13:16	
2-Chlorotoluene	<0.00250		0.00250	0.000328				10/02/13 13:16	
2-Hexanone	<0.0250		0.0250	0.00250				10/02/13 13:16	
4-Chlorotoluene	<0.00250		0.00250	0.000590				10/02/13 13:16	
4-Isopropyltoluene	<0.00250		0.00250		mg/Kg			10/02/13 13:16	
4-Methyl-2-pentanone (MIBK)	<0.0250		0.0250	0.00164				10/02/13 13:16	
Acetone	<0.250		0.250	0.00421				10/02/13 13:16	
Benzene	<0.00250		0.00250	0.000245				10/02/13 13:16	
Bromobenzene	<0.00250		0.00250	0.000880				10/02/13 13:16	
Bromoform	<0.00250		0.00250	0.00250				10/02/13 13:16	
Bromomethane	<0.00500		0.00500	0.000450				10/02/13 13:16	
Carbon disulfide	<0.00250		0.00250	0.00250				10/02/13 13:16	
Carbon tetrachloride	<0.00250		0.00250	0.000484				10/02/13 13:16	
Chlorobenzene	<0.00250		0.00250	0.000660				10/02/13 13:16	
Chlorobromomethane	<0.00250		0.00250	0.000361	0 0			10/02/13 13:16	
Chlorodibromomethane	<0.00250		0.00250	0.000640				10/02/13 13:16	
Chloroethane	<0.00500		0.00500	0.00113				10/02/13 13:16	
Chloroform	<0.00250		0.00250	0.000309				10/02/13 13:16	
Chloromethane	<0.00500		0.00500	0.000302				10/02/13 13:16	
cis-1,2-Dichloroethene	<0.00250		0.00250	0.000640				10/02/13 13:16	
cis-1,3-Dichloropropene	<0.00250		0.00250	0.000720				10/02/13 13:16	
Dichlorobromomethane	<0.00250		0.00250	0.000670				10/02/13 13:16	
Dichlorodifluoromethane	<0.00500		0.00500	0.000413				10/02/13 13:16	
Ethyl ether	<0.00250		0.00250	0.00210				10/02/13 13:16	
Ethylbenzene	<0.00250		0.00250	0.000345				10/02/13 13:16	
Ethylene Dibromide	<0.00250		0.00250	0.000642				10/02/13 13:16	
Hexachlorobutadiene	<0.00250		0.00250	0.000586				10/02/13 13:16	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-142288/6

Matrix: Solid

Analysis Batch: 142288

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batom 142200	МВ	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<0.00250		0.00250	0.00250	mg/Kg			10/02/13 13:16	1
Isopropylbenzene	<0.00250		0.00250	0.000754	mg/Kg			10/02/13 13:16	1
Methyl tert-butyl ether	<0.00250		0.00250	0.000491	mg/Kg			10/02/13 13:16	1
Methylene Chloride	<0.00250		0.00250	0.00230	mg/Kg			10/02/13 13:16	1
m-Xylene & p-Xylene	<0.00500		0.00500	0.000840	mg/Kg			10/02/13 13:16	1
Naphthalene	<0.0250		0.0250	0.000670	mg/Kg			10/02/13 13:16	1
n-Butylbenzene	<0.00250		0.00250	0.000435	mg/Kg			10/02/13 13:16	1
N-Propylbenzene	<0.00250		0.00250	0.000400	mg/Kg			10/02/13 13:16	1
o-Xylene	<0.00250		0.00250	0.000653	mg/Kg			10/02/13 13:16	1
sec-Butylbenzene	<0.00250		0.00250	0.000435	mg/Kg			10/02/13 13:16	1
Styrene	<0.00250		0.00250	0.000250	mg/Kg			10/02/13 13:16	1
Tert-amyl methyl ether	<0.00250		0.00250	0.00128	mg/Kg			10/02/13 13:16	1
Tert-butyl ethyl ether	<0.00250		0.00250	0.00220	mg/Kg			10/02/13 13:16	1
tert-Butylbenzene	<0.00250		0.00250	0.000520	mg/Kg			10/02/13 13:16	1
Tetrachloroethene	<0.00250		0.00250	0.000671	mg/Kg			10/02/13 13:16	1
Tetrahydrofuran	<0.0500		0.0500	0.00460	mg/Kg			10/02/13 13:16	1
Toluene	<0.00250		0.00250	0.000378	mg/Kg			10/02/13 13:16	1
trans-1,2-Dichloroethene	<0.00250		0.00250	0.000516	mg/Kg			10/02/13 13:16	1
trans-1,3-Dichloropropene	<0.00250		0.00250	0.00220	mg/Kg			10/02/13 13:16	1
Trichloroethene	<0.00250		0.00250	0.00110	mg/Kg			10/02/13 13:16	1
Trichlorofluoromethane	<0.00500		0.00500	0.000473	mg/Kg			10/02/13 13:16	1
Vinyl chloride	<0.00250		0.00250	0.000610	mg/Kg			10/02/13 13:16	1
Dibromomethane	<0.00250		0.00250	0.000515	mg/Kg			10/02/13 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		10/02/13 13:16	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		10/02/13 13:16	1
4-Bromofluorobenzene (Surr)	97		70 - 130		10/02/13 13:16	1

Lab Sample ID: LCS 480-142288/4

**Matrix: Solid** 

Analysis Batch: 142288

Client Sample ID:	<b>Lab Control Sample</b>
	Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	0.0500	0.04894		mg/Kg		98	70 - 130
1,1,1-Trichloroethane	0.0500	0.04710		mg/Kg		94	70 _ 130
1,1,2,2-Tetrachloroethane	0.0500	0.04912		mg/Kg		98	70 _ 130
1,1,2-Trichloroethane	0.0500	0.04747		mg/Kg		95	70 - 130
1,1-Dichloroethane	0.0500	0.04872		mg/Kg		97	70 _ 130
1,1-Dichloroethene	0.0500	0.04708		mg/Kg		94	70 _ 130
1,1-Dichloropropene	0.0500	0.04763		mg/Kg		95	70 _ 130
1,2,3-Trichlorobenzene	0.0500	0.04963		mg/Kg		99	70 _ 130
1,2,3-Trichloropropane	0.0500	0.04773		mg/Kg		95	70 - 130
1,2,4-Trichlorobenzene	0.0500	0.05038		mg/Kg		101	70 _ 130
1,2,4-Trimethylbenzene	0.0500	0.04797		mg/Kg		96	70 _ 130
1,2-Dibromo-3-Chloropropane	0.0500	0.04509		mg/Kg		90	70 _ 130
1,2-Dichlorobenzene	0.0500	0.04698		mg/Kg		94	70 _ 130
1,2-Dichloroethane	0.0500	0.04783		mg/Kg		96	70 - 130

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# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-142288/4

**Matrix: Solid** 

Client Sample ID:	<b>Lab Control Sample</b>
	Prep Type: Total/NA

Analysis Batch: 142288	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
1,2-Dichloropropane	0.0500	0.04830		mg/Kg		97	70 - 130
1,3,5-Trimethylbenzene	0.0500	0.04695		mg/Kg		94	70 <sub>-</sub> 130
1,3-Dichlorobenzene	0.0500	0.04629		mg/Kg		93	70 <sub>-</sub> 130
1,3-Dichloropropane	0.0500	0.04771		mg/Kg		95	70 - 130
1,4-Dichlorobenzene	0.0500	0.04485		mg/Kg		90	70 - 130
1,4-Dioxane	2.00	1.643		mg/Kg		82	70 - 130
2,2-Dichloropropane	0.0500	0.04732		mg/Kg		95	70 - 130
2-Butanone (MEK)	0.250	0.3257		mg/Kg		130	70 - 130
2-Chlorotoluene	0.0500	0.04796		mg/Kg		96	70 - 130
2-Hexanone	0.250	0.2361		mg/Kg		94	70 - 130
4-Chlorotoluene	0.0500	0.04792		mg/Kg		96	70 - 130
4-Isopropyltoluene	0.0500	0.04773		mg/Kg		95	70 - 130
4-Methyl-2-pentanone (MIBK)	0.250	0.2363		mg/Kg		95 95	70 <sub>-</sub> 130
Acetone	0.250	0.2493				100	70 - 130
Benzene	0.0500	0.2493	J	mg/Kg		94	70 - 130 70 - 130
				mg/Kg			
Bromobenzene	0.0500	0.04767		mg/Kg		95	70 - 130
Bromoform	0.0500	0.04385		mg/Kg		88	70 - 130
Bromomethane	0.0500	0.04493		mg/Kg		90	70 - 130
Carbon disulfide	0.0500	0.05708		mg/Kg		114	70 - 130
Carbon tetrachloride	0.0500	0.04715		mg/Kg		94	70 - 130
Chlorobenzene	0.0500	0.04396		mg/Kg		88	70 - 130
Chlorobromomethane	0.0500	0.04974		mg/Kg		99	70 - 130
Chlorodibromomethane	0.0500	0.04979		mg/Kg		100	70 - 130
Chloroethane	0.0500	0.04800		mg/Kg		96	70 - 130
Chloroform	0.0500	0.04698		mg/Kg		94	70 - 130
Chloromethane	0.0500	0.04593		mg/Kg		92	70 - 130
cis-1,2-Dichloroethene	0.0500	0.04785		mg/Kg		96	70 - 130
cis-1,3-Dichloropropene	0.0500	0.05083		mg/Kg		102	70 - 130
Dichlorobromomethane	0.0500	0.04885		mg/Kg		98	70 - 130
Dichlorodifluoromethane	0.100	0.1241		mg/Kg		124	70 - 130
Ethyl ether	0.0500	0.04639		mg/Kg		93	70 - 130
Ethylbenzene	0.0500	0.04652		mg/Kg		93	70 - 130
Ethylene Dibromide	0.0500	0.04854		mg/Kg		97	70 - 130
Hexachlorobutadiene	0.0500	0.04692		mg/Kg		94	70 - 130
Isopropyl ether	0.0500	0.04935		mg/Kg		99	70 - 130
Isopropylbenzene	0.0500	0.04760		mg/Kg		95	70 - 130
Methyl tert-butyl ether	0.0500	0.04901		mg/Kg		98	70 - 130
Methylene Chloride	0.0500	0.04697		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.100	0.09299		mg/Kg		93	70 - 130
Naphthalene	0.0500	0.04926		mg/Kg		99	70 - 130
n-Butylbenzene	0.0500	0.04823		mg/Kg		96	70 - 130
N-Propylbenzene	0.0500	0.04732		mg/Kg		95	70 - 130
o-Xylene	0.0500	0.04751		mg/Kg		95	70 - 130
sec-Butylbenzene	0.0500	0.04700		mg/Kg		94	70 - 130
Styrene	0.0500	0.04828		mg/Kg		97	70 - 130
Tert-amyl methyl ether	0.0500	0.05025		mg/Kg		101	70 - 130
Tert-butyl ethyl ether	0.0500	0.04939		mg/Kg		99	70 - 130
tert-Butylbenzene	0.0500	0.04939		mg/Kg		94	70 <sub>-</sub> 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-142288/4

**Matrix: Solid** 

Analysis Batch: 142288

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	0.0500	0.05257		mg/Kg		105	70 - 130	_
Tetrahydrofuran	0.250	0.2326		mg/Kg		93	70 - 130	
Toluene	0.0500	0.04615		mg/Kg		92	70 - 130	
trans-1,2-Dichloroethene	0.0500	0.04753		mg/Kg		95	70 - 130	
trans-1,3-Dichloropropene	0.0500	0.04956		mg/Kg		99	70 - 130	
Trichloroethene	0.0500	0.04734		mg/Kg		95	70 - 130	
Trichlorofluoromethane	0.0500	0.04674		mg/Kg		93	70 - 130	
Vinyl chloride	0.0500	0.04654		mg/Kg		93	70 - 130	
Dibromomethane	0.0500	0.04887		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 480-142288/5

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 142288									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	0.0500	0.04967		mg/Kg		99	70 - 130	1	20
1,1,1-Trichloroethane	0.0500	0.04731		mg/Kg		95	70 - 130	0	20
1,1,2,2-Tetrachloroethane	0.0500	0.05111		mg/Kg		102	70 - 130	4	20
1,1,2-Trichloroethane	0.0500	0.04938		mg/Kg		99	70 - 130	4	20
1,1-Dichloroethane	0.0500	0.04860		mg/Kg		97	70 - 130	0	20
1,1-Dichloroethene	0.0500	0.04669		mg/Kg		93	70 - 130	1	20
1,1-Dichloropropene	0.0500	0.04794		mg/Kg		96	70 - 130	1	20
1,2,3-Trichlorobenzene	0.0500	0.05067		mg/Kg		101	70 - 130	2	20
1,2,3-Trichloropropane	0.0500	0.05010		mg/Kg		100	70 - 130	5	20
1,2,4-Trichlorobenzene	0.0500	0.05038		mg/Kg		101	70 - 130	0	20
1,2,4-Trimethylbenzene	0.0500	0.04703		mg/Kg		94	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	0.0500	0.04994		mg/Kg		100	70 - 130	10	20
1,2-Dichlorobenzene	0.0500	0.04699		mg/Kg		94	70 - 130	0	20
1,2-Dichloroethane	0.0500	0.04847		mg/Kg		97	70 - 130	1	20
1,2-Dichloropropane	0.0500	0.04908		mg/Kg		98	70 - 130	2	20
1,3,5-Trimethylbenzene	0.0500	0.04632		mg/Kg		93	70 - 130	1	20
1,3-Dichlorobenzene	0.0500	0.04612		mg/Kg		92	70 - 130	0	20
1,3-Dichloropropane	0.0500	0.04919		mg/Kg		98	70 - 130	3	20
1,4-Dichlorobenzene	0.0500	0.04470		mg/Kg		89	70 - 130	0	20
1,4-Dioxane	2.00	1.962		mg/Kg		98	70 - 130	18	20
2,2-Dichloropropane	0.0500	0.04774		mg/Kg		95	70 - 130	1	20
2-Butanone (MEK)	0.250	0.3695	*	mg/Kg		148	70 - 130	13	20
2-Chlorotoluene	0.0500	0.04721		mg/Kg		94	70 - 130	2	20
2-Hexanone	0.250	0.2725		mg/Kg		109	70 - 130	14	20
4-Chlorotoluene	0.0500	0.04830		mg/Kg		97	70 - 130	1	20
4-Isopropyltoluene	0.0500	0.04691		mg/Kg		94	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	0.250	0.2649		mg/Kg		106	70 - 130	11	20
Acetone	0.250	0.2887		mg/Kg		115	70 - 130	15	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-142288/5

Matrix: Solid

**Analysis Batch: 142288** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04738		mg/Kg		95	70 - 130	1	20
Bromobenzene	0.0500	0.04811		mg/Kg		96	70 - 130	1	20
Bromoform	0.0500	0.04587		mg/Kg		92	70 - 130	5	20
Bromomethane	0.0500	0.04474		mg/Kg		89	70 - 130	0	20
Carbon disulfide	0.0500	0.05709		mg/Kg		114	70 - 130	0	20
Carbon tetrachloride	0.0500	0.04750		mg/Kg		95	70 - 130	1	20
Chlorobenzene	0.0500	0.04412		mg/Kg		88	70 - 130	0	20
Chlorobromomethane	0.0500	0.05026		mg/Kg		101	70 - 130	1	20
Chlorodibromomethane	0.0500	0.05200		mg/Kg		104	70 - 130	4	20
Chloroethane	0.0500	0.04528		mg/Kg		91	70 - 130	6	20
Chloroform	0.0500	0.04755		mg/Kg		95	70 - 130	1	20
Chloromethane	0.0500	0.04540		mg/Kg		91	70 - 130	1	20
cis-1,2-Dichloroethene	0.0500	0.04792		mg/Kg		96	70 - 130	0	20
cis-1,3-Dichloropropene	0.0500	0.05176		mg/Kg		104	70 - 130	2	20
Dichlorobromomethane	0.0500	0.05009		mg/Kg		100	70 - 130	3	20
Dichlorodifluoromethane	0.100	0.1205		mg/Kg		120	70 - 130	3	20
Ethyl ether	0.0500	0.04586		mg/Kg		92	70 - 130	1	20
Ethylbenzene	0.0500	0.04672		mg/Kg		93	70 - 130	0	20
Ethylene Dibromide	0.0500	0.04995		mg/Kg		100	70 - 130	3	20
Hexachlorobutadiene	0.0500	0.04546		mg/Kg		91	70 - 130	3	20
Isopropyl ether	0.0500	0.05033		mg/Kg		101	70 - 130	2	20
Isopropylbenzene	0.0500	0.04674		mg/Kg		93	70 - 130	2	20
Methyl tert-butyl ether	0.0500	0.05168		mg/Kg		103	70 - 130	5	20
Methylene Chloride	0.0500	0.04685		mg/Kg		94	70 - 130	0	20
m-Xylene & p-Xylene	0.100	0.09339		mg/Kg		93	70 - 130	0	20
Naphthalene	0.0500	0.05232		mg/Kg		105	70 - 130	6	20
n-Butylbenzene	0.0500	0.04730		mg/Kg		95	70 - 130	2	20
N-Propylbenzene	0.0500	0.04628		mg/Kg		93	70 - 130	2	20
o-Xylene	0.0500	0.04757		mg/Kg		95	70 - 130	0	20
sec-Butylbenzene	0.0500	0.04611		mg/Kg		92	70 - 130	2	20
Styrene	0.0500	0.04913		mg/Kg		98	70 - 130	2	20
Tert-amyl methyl ether	0.0500	0.05168		mg/Kg		103	70 - 130	3	20
Tert-butyl ethyl ether	0.0500	0.04997		mg/Kg		100	70 - 130	1	20
tert-Butylbenzene	0.0500	0.04713		mg/Kg		94	70 <sub>-</sub> 130	0	20
Tetrachloroethene	0.0500	0.05599		mg/Kg		112	70 - 130	6	20
Tetrahydrofuran	0.250	0.2674		mg/Kg		107	70 - 130	14	20
Toluene	0.0500	0.04655		mg/Kg		93	70 - 130	1	20
trans-1,2-Dichloroethene	0.0500	0.04734		mg/Kg		95	70 - 130	0	20
trans-1,3-Dichloropropene	0.0500	0.05064		mg/Kg		101	70 - 130	2	20
Trichloroethene	0.0500	0.04718		mg/Kg		94	70 - 130	0	20
Trichlorofluoromethane	0.0500	0.04381		mg/Kg		88	70 - 130	6	20
Vinyl chloride	0.0500	0.04770		mg/Kg		95	70 - 130	2	20
Dibromomethane	0.0500	0.05038		mg/Kg		101	70 - 130	3	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-142564/12-A

Matrix: Solid

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Analysis Batch: 142727	MB	МВ						Prep Batch:	1-12-00-1
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.125		0.125	0.0250	mg/Kg	— –	10/04/13 10:11	10/04/13 12:28	1
1,1,1-Trichloroethane	<0.125		0.125	0.0182	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
1,1,2,2-Tetrachloroethane	<0.125		0.125	0.0406			10/04/13 10:11	10/04/13 12:28	1
1,1,2-Trichloroethane	<0.125		0.125	0.0325			10/04/13 10:11	10/04/13 12:28	1
1,1-Dichloroethane	<0.125		0.125	0.0305			10/04/13 10:11	10/04/13 12:28	1
1,1-Dichloroethene	<0.125		0.125	0.0306			10/04/13 10:11	10/04/13 12:28	1
1,1-Dichloropropene	<0.125		0.125	0.0355			10/04/13 10:11	10/04/13 12:28	1
1,2,3-Trichlorobenzene	<0.125		0.125	0.0266			10/04/13 10:11	10/04/13 12:28	1
1,2,3-Trichloropropane	<0.125		0.125	0.0255			10/04/13 10:11	10/04/13 12:28	1
1,2,4-Trichlorobenzene	<0.125		0.125	0.0152			10/04/13 10:11	10/04/13 12:28	
1,2,4-Trimethylbenzene	<0.125		0.125	0.0480			10/04/13 10:11	10/04/13 12:28	
1,2-Dibromo-3-Chloropropane	<1.25		1.25		mg/Kg		10/04/13 10:11	10/04/13 12:28	. 1
1,2-Dichlorobenzene	<0.125		0.125	0.0196			10/04/13 10:11	10/04/13 12:28	
									1
1,2-Dichloroethane	<0.125		0.125	0.0126			10/04/13 10:11	10/04/13 12:28	
1,2-Dichloropropane	<0.125		0.125		mg/Kg		10/04/13 10:11	10/04/13 12:28	
1,3,5-Trimethylbenzene	<0.125		0.125	0.0161			10/04/13 10:11	10/04/13 12:28	1
1,3-Dichlorobenzene	<0.125		0.125	0.0129			10/04/13 10:11	10/04/13 12:28	1
1,3-Dichloropropane	<0.125		0.125	0.0150	mg/Kg		10/04/13 10:11	10/04/13 12:28	
1,4-Dichlorobenzene	<0.125		0.125	0.0350	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
1,4-Dioxane	<12.5		12.5		mg/Kg		10/04/13 10:11	10/04/13 12:28	1
2,2-Dichloropropane	<0.125		0.125	0.0425			10/04/13 10:11	10/04/13 12:28	1
2-Butanone (MEK)	<1.25		1.25	0.0915	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
2-Chlorotoluene	<0.125		0.125	0.0164	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
2-Hexanone	<1.25		1.25	0.125	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
4-Chlorotoluene	<0.125		0.125	0.0295	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
4-Isopropyltoluene	<0.125		0.125	0.0201	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
4-Methyl-2-pentanone (MIBK)	<1.25		1.25	0.0820	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Acetone	<12.5		12.5	0.211	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Benzene	<0.125		0.125	0.0123	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Bromobenzene	<0.125		0.125	0.0440	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Bromoform	<0.125		0.125	0.125	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Bromomethane	<0.250		0.250	0.0225	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Carbon disulfide	<0.125		0.125	0.125	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Carbon tetrachloride	<0.125		0.125	0.0242	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Chlorobenzene	<0.125		0.125	0.0330	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Chlorobromomethane	<0.125		0.125	0.0181	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Chlorodibromomethane	<0.125		0.125	0.0320			10/04/13 10:11	10/04/13 12:28	1
Chloroethane	<0.250		0.250	0.0565			10/04/13 10:11	10/04/13 12:28	1
Chloroform	<0.125		0.125	0.0155			10/04/13 10:11	10/04/13 12:28	1
Chloromethane	<0.250		0.250	0.0151			10/04/13 10:11	10/04/13 12:28	1
cis-1,2-Dichloroethene	<0.125		0.125	0.0320			10/04/13 10:11	10/04/13 12:28	1
cis-1,3-Dichloropropene	<0.125		0.125	0.0360			10/04/13 10:11	10/04/13 12:28	1
Dichlorobromomethane	<0.125		0.125	0.0335			10/04/13 10:11	10/04/13 12:28	· · · · · · · · · · · · · · · · · · ·
Dichlorodifluoromethane	<0.123		0.123	0.0333			10/04/13 10:11	10/04/13 12:28	1
Ethyl ether			0.230						1
	<0.125				mg/Kg		10/04/13 10:11	10/04/13 12:28	
Ethylpenzene	<0.125		0.125	0.0173			10/04/13 10:11	10/04/13 12:28	1
Ethylene Dibromide	<0.125		0.125	0.0321	mg/ <b>k</b> .g		10/04/13 10:11	10/04/13 12:28	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 480-142564/12-A

Matrix: Solid

**Analysis Batch: 142727** 

Client Sample ID: Method Blank Prep Type: Total/NA

	Trop Type: Tetamin
	Prep Batch: 142564
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Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<0.125	0.125	0.125	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Isopropylbenzene	<0.125	0.125	0.0377	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Methyl tert-butyl ether	<0.125	0.125	0.0246	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Methylene Chloride	<0.125	0.125	0.115	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
m-Xylene & p-Xylene	<0.250	0.250	0.0420	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Naphthalene	<1.25	1.25	0.0335	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
n-Butylbenzene	<0.125	0.125	0.0218	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
N-Propylbenzene	<0.125	0.125	0.0200	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
o-Xylene	<0.125	0.125	0.0327	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
sec-Butylbenzene	<0.125	0.125	0.0218	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Styrene	<0.125	0.125	0.0125	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Tert-amyl methyl ether	<0.125	0.125	0.0640	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Tert-butyl ethyl ether	<0.125	0.125	0.110	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
tert-Butylbenzene	<0.125	0.125	0.0260	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Tetrachloroethene	<0.125	0.125	0.0336	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Tetrahydrofuran	<2.50	2.50	0.230	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Toluene	<0.125	0.125	0.0189	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
trans-1,2-Dichloroethene	<0.125	0.125	0.0258	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
trans-1,3-Dichloropropene	<0.125	0.125	0.110	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Trichloroethene	<0.125	0.125	0.0550	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Trichlorofluoromethane	<0.250	0.250	0.0237	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Vinyl chloride	<0.125	0.125	0.0305	mg/Kg		10/04/13 10:11	10/04/13 12:28	1
Dibromomethane	<0.125	0.125	0.0258	mg/Kg		10/04/13 10:11	10/04/13 12:28	1

ИΒ	MB

	IVID IVID				
Surrogate	%Recovery Qualifie	er Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98	70 - 130	10/04/13 10:11	10/04/13 12:28	1
1,2-Dichloroethane-d4 (Surr)	98	70 - 130	10/04/13 10:11	10/04/13 12:28	1
4-Bromofluorobenzene (Surr)	100	70 130	10/04/13 10:11	10/04/13 12:28	1

Lab Sample ID: MB 480-142564/3-A

Matrix: Solid

Analysis Batch: 142492

Client Sam	ple ID: Method Blank
	Prep Type: Total/NA

Prep Batch: 142564

p Batcn: 14256	Ргер ва								Analysis Batch: 142492
							MB	MB	
lyzed Dil Fa	Analyzed	Prepared	D	Unit	MDL	RL	Qualifier	Result	Analyte
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0250	0.125		<0.125	1,1,1,2-Tetrachloroethane
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0182	0.125		<0.125	1,1,1-Trichloroethane
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0406	0.125		<0.125	1,1,2,2-Tetrachloroethane
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0325	0.125		<0.125	1,1,2-Trichloroethane
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0305	0.125		<0.125	1,1-Dichloroethane
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0306	0.125		<0.125	1,1-Dichloroethene
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0355	0.125		<0.125	1,1-Dichloropropene
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0266	0.125		<0.125	1,2,3-Trichlorobenzene
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0255	0.125		<0.125	1,2,3-Trichloropropane
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0152	0.125		<0.125	1,2,4-Trichlorobenzene
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0480	0.125		<0.125	1,2,4-Trimethylbenzene
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.125	1.25		<1.25	1,2-Dibromo-3-Chloropropane
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0196	0.125		<0.125	1,2-Dichlorobenzene
13 13:06	10/03/13 13:	10/03/13 09:44		mg/Kg	0.0126	0.125		<0.125	1,2-Dichloroethane
1.	10/03 10/03 10/03 10/03 10/03	10/03/13 09:44 10/03/13 09:44 10/03/13 09:44 10/03/13 09:44 10/03/13 09:44 10/03/13 09:44		mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	0.0266 0.0255 0.0152 0.0480 0.125 0.0196	0.125 0.125 0.125 0.125 1.25 0.125		<0.125 <0.125 <0.125 <0.125 <1.25 <0.125	1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dibromo-3-Chloropropane 1,2-Dichlorobenzene

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-142564/3-A

**Matrix: Solid** 

tert-Butylbenzene

Analysis Batch: 142492

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 142564

Alidiysis Balcii. 142492	MB MB						Prep Batch	. 142304
Analyte	Result Qualifie	er RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<0.125	0.125	0.125	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
1,3,5-Trimethylbenzene	<0.125	0.125	0.0161	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
1,3-Dichlorobenzene	<0.125	0.125	0.0129	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
1,3-Dichloropropane	<0.125	0.125	0.0150	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
1,4-Dichlorobenzene	<0.125	0.125	0.0350	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
1,4-Dioxane	<12.5	12.5	1.21	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
2,2-Dichloropropane	<0.125	0.125	0.0425	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
2-Butanone (MEK)	<1.25	1.25	0.0915	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
2-Chlorotoluene	<0.125	0.125	0.0164	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
2-Hexanone	<1.25	1.25	0.125	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
4-Chlorotoluene	<0.125	0.125	0.0295	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
4-Isopropyltoluene	<0.125	0.125	0.0201	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
4-Methyl-2-pentanone (MIBK)	<1.25	1.25	0.0820	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Acetone	<12.5	12.5	0.211	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Benzene	<0.125	0.125	0.0123	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Bromobenzene	<0.125	0.125	0.0440	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Bromoform	<0.125	0.125	0.125	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Bromomethane	<0.250	0.250	0.0225	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Carbon disulfide	<0.125	0.125	0.125	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Carbon tetrachloride	<0.125	0.125	0.0242			10/03/13 09:44	10/03/13 13:06	1
Chlorobenzene	<0.125	0.125	0.0330			10/03/13 09:44	10/03/13 13:06	1
Chlorobromomethane	<0.125	0.125	0.0181	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Chlorodibromomethane	<0.125	0.125	0.0320	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Chloroethane	<0.250	0.250	0.0565			10/03/13 09:44	10/03/13 13:06	1
Chloroform	<0.125	0.125	0.0155			10/03/13 09:44	10/03/13 13:06	1
Chloromethane	<0.250	0.250	0.0151	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
cis-1,2-Dichloroethene	<0.125	0.125	0.0320	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
cis-1,3-Dichloropropene	<0.125	0.125	0.0360			10/03/13 09:44	10/03/13 13:06	1
Dichlorobromomethane	<0.125	0.125	0.0335			10/03/13 09:44	10/03/13 13:06	1
Dichlorodifluoromethane	<0.250	0.250	0.0207			10/03/13 09:44	10/03/13 13:06	1
Ethyl ether	<0.125	0.125		mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Ethylbenzene	<0.125	0.125	0.0173			10/03/13 09:44	10/03/13 13:06	· · · · · · · · · · · · · · · · · · ·
Ethylene Dibromide	<0.125	0.125	0.0321			10/03/13 09:44	10/03/13 13:06	1
Hexachlorobutadiene	<0.125	0.125	0.0293			10/03/13 09:44	10/03/13 13:06	1
Isopropyl ether	<0.125	0.125		mg/Kg		10/03/13 09:44	10/03/13 13:06	
Isopropylbenzene	<0.125	0.125	0.0377			10/03/13 09:44	10/03/13 13:06	1
Methyl tert-butyl ether	<0.125	0.125	0.0246			10/03/13 09:44	10/03/13 13:06	1
Methylene Chloride	<0.125	0.125		mg/Kg		10/03/13 09:44	10/03/13 13:06	1
m-Xylene & p-Xylene	<0.250	0.250	0.0420			10/03/13 09:44	10/03/13 13:06	1
Naphthalene	<1.25	1.25	0.0335			10/03/13 09:44	10/03/13 13:06	1
n-Butylbenzene	<0.125	0.125	0.0218			10/03/13 09:44	10/03/13 13:06	1
N-Propylbenzene	<0.125					10/03/13 09:44		1
o-Xylene	<0.125	0.125 0.125	0.0200 0.0327			10/03/13 09:44	10/03/13 13:06	1
							10/03/13 13:06	
sec-Butylbenzene	<0.125	0.125	0.0218			10/03/13 09:44	10/03/13 13:06	1
Styrene Test amul methyl ether	<0.125	0.125	0.0125			10/03/13 09:44	10/03/13 13:06	1
Tert-amyl methyl ether	<0.125	0.125	0.0640			10/03/13 09:44	10/03/13 13:06	1
Tert-butyl ethyl ether	<0.125	0.125	0.110	mg/Kg		10/03/13 09:44	10/03/13 13:06	1

TestAmerica Buffalo

10/03/13 13:06

10/03/13 09:44

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0.125

0.0260 mg/Kg

<0.125

1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-142564/3-A

**Matrix: Solid** 

Analysis Batch: 142492

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 142564

_	МВ	MB						•	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.125		0.125	0.0336	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Tetrahydrofuran	<2.50		2.50	0.230	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Toluene	<0.125		0.125	0.0189	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
trans-1,2-Dichloroethene	<0.125		0.125	0.0258	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
trans-1,3-Dichloropropene	<0.125		0.125	0.110	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Trichloroethene	<0.125		0.125	0.0550	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Trichlorofluoromethane	<0.250		0.250	0.0237	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Vinyl chloride	<0.125		0.125	0.0305	mg/Kg		10/03/13 09:44	10/03/13 13:06	1
Dibromomethane	<0.125		0.125	0.0258	mg/Kg		10/03/13 09:44	10/03/13 13:06	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97	70 - 130	10/03/13 09:44	10/03/13 13:06	1
1,2-Dichloroethane-d4 (Surr)	99	70 - 130	10/03/13 09:44	10/03/13 13:06	1
4-Bromofluorobenzene (Surr)	98	70 - 130	10/03/13 09:44	10/03/13 13:06	1

Lab Sample ID: LCS 480-142564/10-A

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Analysis Batch: 142727							Prep Batch: 142564
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	1.25	1.333		mg/Kg		107	70 - 130
1,1,1-Trichloroethane	1.25	1.390		mg/Kg		111	70 - 130
1,1,2,2-Tetrachloroethane	1.25	1.269		mg/Kg		102	70 - 130
1,1,2-Trichloroethane	1.25	1.261		mg/Kg		101	70 - 130
1,1-Dichloroethane	1.25	1.341		mg/Kg		107	70 - 130
1,1-Dichloroethene	1.25	1.350		mg/Kg		108	70 - 130
1,1-Dichloropropene	1.25	1.359		mg/Kg		109	70 - 130
1,2,3-Trichlorobenzene	1.25	1.283		mg/Kg		103	70 - 130
1,2,3-Trichloropropane	1.25	1.264		mg/Kg		101	70 - 130
1,2,4-Trichlorobenzene	1.25	1.315		mg/Kg		105	70 - 130
1,2,4-Trimethylbenzene	1.25	1.319		mg/Kg		105	70 - 130
1,2-Dibromo-3-Chloropropane	1.25	1.182	J	mg/Kg		95	70 - 130
1,2-Dichlorobenzene	1.25	1.275		mg/Kg		102	70 - 130
1,2-Dichloroethane	1.25	1.310		mg/Kg		105	70 - 130
1,2-Dichloropropane	1.25	1.287		mg/Kg		103	70 - 130
1,3,5-Trimethylbenzene	1.25	1.319		mg/Kg		106	70 - 130
1,3-Dichlorobenzene	1.25	1.273		mg/Kg		102	70 - 130
1,3-Dichloropropane	1.25	1.249		mg/Kg		100	70 - 130
1,4-Dichlorobenzene	1.25	1.268		mg/Kg		101	70 - 130
1,4-Dioxane	50.0	62.24		mg/Kg		124	70 - 130
2,2-Dichloropropane	1.25	1.415		mg/Kg		113	70 - 130
2-Butanone (MEK)	6.25	9.282	*	mg/Kg		149	70 - 130
2-Chlorotoluene	1.25	1.572		mg/Kg		126	70 - 130
2-Hexanone	6.25	6.661		mg/Kg		107	70 - 130
4-Chlorotoluene	1.25	1.426		mg/Kg		114	70 - 130
4-Isopropyltoluene	1.25	1.342		mg/Kg		107	70 - 130
4-Methyl-2-pentanone (MIBK)	6.25	6.542		mg/Kg		105	70 - 130
Acetone	6.25	6.692	J	mg/Kg		107	70 - 130

Spike

LCS LCS

TestAmerica Job ID: 480-46783-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-142564/10-A

**Matrix: Solid** 

Vinyl chloride

Dibromomethane

Analysis Batch: 142727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 142564

	<b>Бріке</b>	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	1.25	1.288		mg/Kg		103	70 - 130	
Bromobenzene	1.25	1.282		mg/Kg		103	70 - 130	
Bromoform	1.25	1.355		mg/Kg		108	70 - 130	
Bromomethane	1.25	1.315		mg/Kg		105	70 - 130	
Carbon disulfide	1.25	1.412		mg/Kg		113	70 - 130	
Carbon tetrachloride	1.25	1.425		mg/Kg		114	70 - 130	
Chlorobenzene	1.25	1.276		mg/Kg		102	70 - 130	
Chlorobromomethane	1.25	1.335		mg/Kg		107	70 - 130	
Chlorodibromomethane	1.25	1.358		mg/Kg		109	70 - 130	
Chloroethane	1.25	1.314		mg/Kg		105	70 - 130	
Chloroform	1.25	1.319		mg/Kg		106	70 - 130	
Chloromethane	1.25	1.215		mg/Kg		97	70 - 130	
cis-1,2-Dichloroethene	1.25	1.287		mg/Kg		103	70 - 130	
cis-1,3-Dichloropropene	1.25	1.388		mg/Kg		111	70 - 130	
Dichlorobromomethane	1.25	1.351		mg/Kg		108	70 - 130	
Dichlorodifluoromethane	2.50	3.345	*	mg/Kg		134	70 - 130	
Ethyl ether	1.25	1.316		mg/Kg		105	70 - 130	
Ethylbenzene	1.25	1.303		mg/Kg		104	70 - 130	
Ethylene Dibromide	1.25	1.279		mg/Kg		102	70 - 130	
Hexachlorobutadiene	1.25	1.383		mg/Kg		111	70 - 130	
Isopropyl ether	1.25	1.335		mg/Kg		107	70 - 130	
Isopropylbenzene	1.25	1.346		mg/Kg		108	70 - 130	
Methyl tert-butyl ether	1.25	1.399		mg/Kg		112	70 - 130	
Methylene Chloride	1.25	1.264		mg/Kg		101	70 - 130	
m-Xylene & p-Xylene	2.50	2.581		mg/Kg		103	70 - 130	
Naphthalene	1.25	1.274		mg/Kg		102	70 - 130	
n-Butylbenzene	1.25	1.351		mg/Kg		108	70 - 130	
N-Propylbenzene	1.25	1.344		mg/Kg		108	70 - 130	
o-Xylene	1.25	1.318		mg/Kg		105	70 - 130	
sec-Butylbenzene	1.25	1.332		mg/Kg		107	70 - 130	
Styrene	1.25	1.310		mg/Kg		105	70 - 130	
Tert-amyl methyl ether	1.25	1.316		mg/Kg		105	70 - 130	
Tert-butyl ethyl ether	1.25	1.271		mg/Kg		102	70 - 130	
tert-Butylbenzene	1.25	1.322		mg/Kg		106	70 - 130	
Tetrachloroethene	1.25	1.378		mg/Kg		110	70 - 130	
Tetrahydrofuran	6.25	6.370		mg/Kg		102	70 - 130	
Toluene	1.25	1.295		mg/Kg		104	70 - 130	
trans-1,2-Dichloroethene	1.25	1.289		mg/Kg		103	70 - 130	
trans-1,3-Dichloropropene	1.25	1.366		mg/Kg		109	70 - 130	
Trichloroethene	1.25	1.358		mg/Kg		109	70 - 130	
Trichlorofluoromethane	1.25	1.453		mg/Kg		116	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130

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70 - 130

70 - 130

110

1.25

1.25

1.375

1.280

mg/Kg

mg/Kg

3

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-142564/1-A

Matrix: Solid

<b>Client Sample ID: Lab Control Sample</b>
Prep Type: Total/NA
Prep Batch: 142564

Analysis Batch: 142492							Prep Batch: 14256
	Spike		LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	1.25	1.282		mg/Kg		103	70 - 130
1,1,1-Trichloroethane	1.25	1.283		mg/Kg		103	70 - 130
1,1,2,2-Tetrachloroethane	1.25	1.246		mg/Kg		100	70 - 130
1,1,2-Trichloroethane	1.25	1.225		mg/Kg		98	70 - 130
1,1-Dichloroethane	1.25	1.276		mg/Kg		102	70 - 130
1,1-Dichloroethene	1.25	1.251		mg/Kg		100	70 - 130
1,1-Dichloropropene	1.25	1.286		mg/Kg		103	70 - 130
1,2,3-Trichlorobenzene	1.25	1.281		mg/Kg		102	70 - 130
1,2,3-Trichloropropane	1.25	1.255		mg/Kg		100	70 - 130
1,2,4-Trichlorobenzene	1.25	1.288		mg/Kg		103	70 - 130
1,2,4-Trimethylbenzene	1.25	1.273		mg/Kg		102	70 - 130
1,2-Dibromo-3-Chloropropane	1.25	1.170	J	mg/Kg		94	70 - 130
1,2-Dichlorobenzene	1.25	1.256		mg/Kg		100	70 - 130
1,2-Dichloroethane	1.25	1.225		mg/Kg		98	70 - 130
1,2-Dichloropropane	1.25	1.247		mg/Kg		100	70 - 130
1,3,5-Trimethylbenzene	1.25	1.265		mg/Kg		101	70 <sub>-</sub> 130
1,3-Dichlorobenzene	1.25	1.251		mg/Kg		100	70 <sub>-</sub> 130
1,3-Dichloropropane	1.25	1.205		mg/Kg		96	70 <sub>-</sub> 130
1,4-Dichlorobenzene	1.25	1.232		mg/Kg		99	70 - 130
1,4-Dioxane	50.0	62.29		mg/Kg		125	70 - 130
2,2-Dichloropropane	1.25	1.311		mg/Kg		105	70 <sub>-</sub> 130
2-Butanone (MEK)	6.25	9.120	*	mg/Kg		146	70 - 130
2-Chlorotoluene	1.25	1.521		mg/Kg		122	70 - 130
2-Hexanone	6.25	6.675		mg/Kg		107	70 - 130
4-Chlorotoluene	1.25	1.370		mg/Kg		110	70 - 130
4-Isopropyltoluene	1.25	1.287		mg/Kg		103	70 - 130
4-Methyl-2-pentanone (MIBK)	6.25	6.541		mg/Kg		105	70 - 130
Acetone	6.25	6.943		mg/Kg		111	70 - 130
Benzene	1.25	1.229	ŭ	mg/Kg		98	70 - 130
Bromobenzene	1.25	1.260		mg/Kg		101	70 - 130
Bromoform	1.25	1.335		mg/Kg		107	70 - 130
Bromomethane	1.25	1.227		mg/Kg		98	70 - 130
Carbon disulfide	1.25	1.363		mg/Kg		109	70 - 130 70 - 130
Carbon tetrachloride	1.25	1.308		mg/Kg		105	70 - 130
	1.25	1.241				99	70 <sub>-</sub> 130
Chlorobromomethane	1.25	1.241		mg/Kg		102	70 <sub>-</sub> 130 70 <sub>-</sub> 130
Chlorodibromomethane				mg/Kg			70 - 130
	1.25 1.25	1.305		mg/Kg		104	70 - 130 70 - 130
Chloroform		1.266		mg/Kg		101	
Chloroform	1.25	1.241		mg/Kg		99	70 - 130
Chloromethane	1.25	1.186		mg/Kg		95	70 - 130
cis-1,2-Dichloroethene	1.25	1.222		mg/Kg		98	70 - 130
cis-1,3-Dichloropropene	1.25	1.320		mg/Kg		106	70 - 130
Dichlorobromomethane	1.25	1.280		mg/Kg		102	70 - 130
Dichlorodifluoromethane	2.50	3.207		mg/Kg		128	70 - 130
Ethyl ether	1.25	1.265		mg/Kg		101	70 - 130
Ethylbenzene	1.25	1.256		mg/Kg		100	70 - 130
Ethylene Dibromide	1.25	1.238		mg/Kg		99	70 - 130
Hexachlorobutadiene	1.25	1.369		mg/Kg		109	70 - 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-142564/1-A

**Matrix: Solid** 

Analysis Batch: 142492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 142564

	Spike	LCS	LCS				%Rec.	
Analyte	Added Result 0	Qualifier	Unit	D	%Rec	Limits		
Isopropyl ether	1.25	1.256		mg/Kg		100	70 - 130	-
Isopropylbenzene	1.25	1.281		mg/Kg		102	70 - 130	
Methyl tert-butyl ether	1.25	1.369		mg/Kg		110	70 - 130	
Methylene Chloride	1.25	1.217		mg/Kg		97	70 - 130	
m-Xylene & p-Xylene	2.50	2.528		mg/Kg		101	70 - 130	
Naphthalene	1.25	1.281		mg/Kg		102	70 - 130	
n-Butylbenzene	1.25	1.293		mg/Kg		103	70 - 130	
N-Propylbenzene	1.25	1.286		mg/Kg		103	70 - 130	
o-Xylene	1.25	1.259		mg/Kg		101	70 - 130	
sec-Butylbenzene	1.25	1.286		mg/Kg		103	70 - 130	
Styrene	1.25	1.269		mg/Kg		101	70 - 130	
Tert-amyl methyl ether	1.25	1.246		mg/Kg		100	70 - 130	
Tert-butyl ethyl ether	1.25	1.190		mg/Kg		95	70 - 130	
tert-Butylbenzene	1.25	1.262		mg/Kg		101	70 - 130	
Tetrachloroethene	1.25	1.309		mg/Kg		105	70 - 130	
Tetrahydrofuran	6.25	6.366		mg/Kg		102	70 - 130	
Toluene	1.25	1.226		mg/Kg		98	70 - 130	
trans-1,2-Dichloroethene	1.25	1.242		mg/Kg		99	70 - 130	
trans-1,3-Dichloropropene	1.25	1.303		mg/Kg		104	70 - 130	
Trichloroethene	1.25	1.273		mg/Kg		102	70 - 130	
Trichlorofluoromethane	1.25	1.347		mg/Kg		108	70 - 130	
Vinyl chloride	1.25	1.281		mg/Kg		102	70 - 130	
Dibromomethane	1.25	1.233		mg/Kg		99	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 480-142564/11-A

Matrix: Solid

Analysis Batch: 142727

Client Sample ID: Lab C	Control Sample Dup
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Prep Type: Total/NA Prep Batch: 142564

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	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	1.25	1.282		mg/Kg		103	70 - 130	4	20
1,1,1-Trichloroethane	1.25	1.321		mg/Kg		106	70 - 130	5	20
1,1,2,2-Tetrachloroethane	1.25	1.269		mg/Kg		101	70 - 130	0	20
1,1,2-Trichloroethane	1.25	1.224		mg/Kg		98	70 - 130	3	20
1,1-Dichloroethane	1.25	1.279		mg/Kg		102	70 - 130	5	20
1,1-Dichloroethene	1.25	1.289		mg/Kg		103	70 - 130	5	20
1,1-Dichloropropene	1.25	1.314		mg/Kg		105	70 - 130	3	20
1,2,3-Trichlorobenzene	1.25	1.301		mg/Kg		104	70 - 130	1	20
1,2,3-Trichloropropane	1.25	1.251		mg/Kg		100	70 - 130	1	20
1,2,4-Trichlorobenzene	1.25	1.294		mg/Kg		104	70 - 130	2	20
1,2,4-Trimethylbenzene	1.25	1.270		mg/Kg		102	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	1.25	1.235	J	mg/Kg		99	70 - 130	4	20
1,2-Dichlorobenzene	1.25	1.250		mg/Kg		100	70 - 130	2	20
1,2-Dichloroethane	1.25	1.268		mg/Kg		101	70 - 130	3	20

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-142564/11-A

**Matrix: Solid** 

Analysis Batch: 142727

**Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA

Prep Batch: 142564

Analysis Batch: 142727	Spike	LCCD	LCSD				Prep I %Rec.	Batch: 1	42564 RPD
Analyte	Added	Result		Unit	D	%Rec	Limits	RPD	Limit
1,2-Dichloropropane	1.25	1.253		mg/Kg	— <u> </u>	100	70 - 130	3	20
1,3,5-Trimethylbenzene	1.25	1.278		mg/Kg		102	70 - 130	3	20
1,3-Dichlorobenzene	1.25	1.246		mg/Kg		100	70 - 130	2	20
1,3-Dichloropropane	1.25	1.210		mg/Kg		97	70 - 130	3	20
1,4-Dichlorobenzene	1.25	1.239		mg/Kg		99	70 - 130	2	20
1,4-Dioxane	50.0	61.65		mg/Kg		123	70 - 130	1	20
2,2-Dichloropropane	1.25	1.345		mg/Kg		108	70 - 130	5	20
2-Butanone (MEK)	6.25	9.228	*	mg/Kg		148	70 - 130	1	20
2-Chlorotoluene	1.25	1.542		mg/Kg		123	70 - 130	2	20
2-Hexanone	6.25	6.671		mg/Kg		107	70 <sub>-</sub> 130	0	20
4-Chlorotoluene	1.25	1.395		mg/Kg		112	70 - 130	2	20
4-Isopropyltoluene	1.25	1.307		mg/Kg		105	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	6.25	6.531		mg/Kg		104	70 - 130	0	20
Acetone	6.25	6.715	J	mg/Kg		107	70 - 130	0	20
Benzene	1.25	1.238		mg/Kg		99	70 - 130	4	20
Bromobenzene	1.25	1.262		mg/Kg		101	70 - 130	2	20
Bromoform	1.25	1.371		mg/Kg		110	70 - 130	1	20
Bromomethane	1.25	1.232		mg/Kg		99	70 - 130	7	20
Carbon disulfide	1.25	1.351		mg/Kg		108	70 - 130	4	20
Carbon tetrachloride	1.25	1.351		mg/Kg		108	70 - 130	5	20
Chlorobenzene	1.25	1.225		mg/Kg		98	70 - 130	4	20
Chlorobromomethane	1.25	1.279		mg/Kg		102	70 - 130	4	20
Chlorodibromomethane	1.25	1.316		mg/Kg		105	70 - 130	3	20
Chloroethane	1.25	1.258		mg/Kg		101	70 - 130	4	20
Chloroform	1.25	1.252		mg/Kg		100	70 - 130	5	20
Chloromethane	1.25	1.137		mg/Kg		91	70 - 130	7	20
cis-1,2-Dichloroethene	1.25	1.235		mg/Kg		99	70 - 130	4	20
cis-1,3-Dichloropropene	1.25	1.325		mg/Kg		106	70 - 130	5	20
Dichlorobromomethane	1.25	1.290		mg/Kg		103	70 - 130	5	20
Dichlorodifluoromethane	2.50	3.113		mg/Kg		125	70 - 130	7	20
Ethyl ether	1.25	1.278		mg/Kg		102	70 - 130	3	20
Ethylbenzene	1.25	1.253		mg/Kg		100	70 - 130	4	20
Ethylene Dibromide	1.25	1.257		mg/Kg		101	70 - 130	2	20
Hexachlorobutadiene	1.25	1.382		mg/Kg		111	70 - 130	0	20
Isopropyl ether	1.25	1.277		mg/Kg		102	70 - 130	4	20
Isopropylbenzene	1.25	1.305		mg/Kg		104	70 - 130	3	20
Methyl tert-butyl ether	1.25	1.366		mg/Kg		109	70 - 130	2	20
Methylene Chloride	1.25	1.234		mg/Kg		99	70 - 130	2	20
m-Xylene & p-Xylene	2.50	2.511		mg/Kg		100	70 - 130	3	20
Naphthalene	1.25	1.318		mg/Kg		105	70 - 130	3	20
n-Butylbenzene	1.25	1.317		mg/Kg		105	70 - 130	3	20
N-Propylbenzene	1.25	1.307		mg/Kg		105	70 - 130	3	20
o-Xylene	1.25	1.268		mg/Kg		101	70 - 130	4	20
sec-Butylbenzene	1.25	1.298		mg/Kg		104	70 - 130	3	20
Styrene	1.25	1.269		mg/Kg		102	70 - 130	3	20
Tert-amyl methyl ether	1.25	1.278		mg/Kg		102	70 - 130	3	20
Tert-butyl ethyl ether	1.25	1.239		mg/Kg		99	70 - 130	3	20
tert-Butylbenzene	1.25	1.304		mg/Kg		104	70 <sub>-</sub> 130	1	20

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-142564/11-A

**Matrix: Solid** 

Analysis Batch: 142727

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 142564** 

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	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Tetrachloroethene	1.25	1.313		mg/Kg		105	70 - 130	5	20
Tetrahydrofuran	6.25	6.128		mg/Kg		98	70 - 130	4	20
Toluene	1.25	1.239		mg/Kg		99	70 - 130	4	20
trans-1,2-Dichloroethene	1.25	1.251		mg/Kg		100	70 - 130	3	20
trans-1,3-Dichloropropene	1.25	1.329		mg/Kg		106	70 - 130	3	20
Trichloroethene	1.25	1.300		mg/Kg		104	70 - 130	4	20
Trichlorofluoromethane	1.25	1.386		mg/Kg		111	70 - 130	5	20
Vinyl chloride	1.25	1.274		mg/Kg		102	70 - 130	8	20
Dibromomethane	1.25	1.250		mg/Kg		100	70 - 130	2	20

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
Toluene-d8 (Surr)	97	70 - 130
1,2-Dichloroethane-d4 (Surr)	101	70 - 130
4-Bromofluorobenzene (Surr)	100	70 - 130

Lab Sample ID: LCSD 480-142564/2-A

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

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Analysis Batch: 142492							Prep I	Batch: 1	42564
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	1.25	1.330		mg/Kg		106	70 - 130	4	20
1,1,1-Trichloroethane	1.25	1.366		mg/Kg		109	70 - 130	6	20
1,1,2,2-Tetrachloroethane	1.25	1.270		mg/Kg		102	70 - 130	2	20
1,1,2-Trichloroethane	1.25	1.272		mg/Kg		102	70 - 130	4	20
1,1-Dichloroethane	1.25	1.330		mg/Kg		106	70 - 130	4	20
1,1-Dichloroethene	1.25	1.348		mg/Kg		108	70 - 130	7	20
1,1-Dichloropropene	1.25	1.357		mg/Kg		109	70 - 130	5	20
1,2,3-Trichlorobenzene	1.25	1.313		mg/Kg		105	70 - 130	2	20
1,2,3-Trichloropropane	1.25	1.273		mg/Kg		102	70 - 130	1	20
1,2,4-Trichlorobenzene	1.25	1.332		mg/Kg		107	70 - 130	3	20
1,2,4-Trimethylbenzene	1.25	1.307		mg/Kg		105	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	1.25	1.212	J	mg/Kg		97	70 - 130	4	20
1,2-Dichlorobenzene	1.25	1.273		mg/Kg		102	70 - 130	1	20
1,2-Dichloroethane	1.25	1.259		mg/Kg		101	70 - 130	3	20
1,2-Dichloropropane	1.25	1.305		mg/Kg		104	70 - 130	5	20
1,3,5-Trimethylbenzene	1.25	1.315		mg/Kg		105	70 - 130	4	20
1,3-Dichlorobenzene	1.25	1.276		mg/Kg		102	70 - 130	2	20
1,3-Dichloropropane	1.25	1.279		mg/Kg		102	70 - 130	6	20
1,4-Dichlorobenzene	1.25	1.280		mg/Kg		102	70 - 130	4	20
1,4-Dioxane	50.0	66.40	*	mg/Kg		133	70 - 130	6	20
2,2-Dichloropropane	1.25	1.377		mg/Kg		110	70 - 130	5	20
2-Butanone (MEK)	6.25	9.437	*	mg/Kg		151	70 - 130	3	20
2-Chlorotoluene	1.25	1.288		mg/Kg		103	70 - 130	17	20
2-Hexanone	6.25	6.964		mg/Kg		111	70 - 130	4	20
4-Chlorotoluene	1.25	1.391		mg/Kg		111	70 - 130	2	20
4-Isopropyltoluene	1.25	1.334		mg/Kg		107	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	6.25	6.835		mg/Kg		109	70 - 130	4	20
Acetone	6.25	7.118	J	mg/Kg		114	70 - 130	2	20

Spike

Added

LCSD LCSD

Result Qualifier

Unit

TestAmerica Job ID: 480-46783-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Analysis Batch: 142492

**Matrix: Solid** 

Tetrahydrofuran

Trichloroethene

Vinyl chloride

Dibromomethane

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

Trichlorofluoromethane

Toluene

Analyte

Lab Sample ID: LCSD 480-142564/2-A

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Lab Control Sample Dup

Limits

%Rec

Prep Type: Total/NA

Prep Batch: 142564

RPD

Analyte	Added	Result	Qualifier	Unit	U	%Rec	Limits	KPD	Limit
Benzene	1.25	1.289		mg/Kg		103	70 - 130	5	20
Bromobenzene	1.25	1.283		mg/Kg		103	70 - 130	2	20
Bromoform	1.25	1.368		mg/Kg		109	70 - 130	2	20
Bromomethane	1.25	1.288		mg/Kg		103	70 - 130	5	20
Carbon disulfide	1.25	1.492		mg/Kg		119	70 - 130	9	20
Carbon tetrachloride	1.25	1.397		mg/Kg		112	70 - 130	7	20
Chlorobenzene	1.25	1.296		mg/Kg		104	70 - 130	4	20
Chlorobromomethane	1.25	1.313		mg/Kg		105	70 - 130	3	20
Chlorodibromomethane	1.25	1.362		mg/Kg		109	70 - 130	4	20
Chloroethane	1.25	1.331		mg/Kg		106	70 - 130	5	20
Chloroform	1.25	1.291		mg/Kg		103	70 - 130	4	20
Chloromethane	1.25	1.257		mg/Kg		101	70 - 130	6	20
cis-1,2-Dichloroethene	1.25	1.288		mg/Kg		103	70 - 130	5	20
cis-1,3-Dichloropropene	1.25	1.381		mg/Kg		110	70 - 130	4	20
Dichlorobromomethane	1.25	1.329		mg/Kg		106	70 - 130	4	20
Dichlorodifluoromethane	2.50	3.420	*	mg/Kg		137	70 - 130	6	20
Ethyl ether	1.25	1.301		mg/Kg		104	70 - 130	3	20
Ethylbenzene	1.25	1.317		mg/Kg		105	70 - 130	5	20
Ethylene Dibromide	1.25	1.335		mg/Kg		107	70 - 130	8	20
Hexachlorobutadiene	1.25	1.440		mg/Kg		115	70 - 130	5	20
Isopropyl ether	1.25	1.287		mg/Kg		103	70 - 130	2	20
Isopropylbenzene	1.25	1.322		mg/Kg		106	70 - 130	3	20
Methyl tert-butyl ether	1.25	1.400		mg/Kg		112	70 - 130	2	20
Methylene Chloride	1.25	1.258		mg/Kg		101	70 - 130	3	20
m-Xylene & p-Xylene	2.50	2.613		mg/Kg		105	70 - 130	3	20
Naphthalene	1.25	1.348		mg/Kg		108	70 - 130	5	20
n-Butylbenzene	1.25	1.349		mg/Kg		108	70 - 130	4	20
N-Propylbenzene	1.25	1.330		mg/Kg		106	70 - 130	3	20
o-Xylene	1.25	1.327		mg/Kg		106	70 - 130	5	20
sec-Butylbenzene	1.25	1.339		mg/Kg		107	70 - 130	4	20
Styrene	1.25	1.326		mg/Kg		106	70 - 130	4	20
Tert-amyl methyl ether	1.25	1.282		mg/Kg		103	70 - 130	3	20
Tert-butyl ethyl ether	1.25	1.247		mg/Kg		100	70 - 130	5	20
tert-Butylbenzene	1.25	1.344		mg/Kg		107	70 - 130	6	20
Tetrachloroethene	1.25	1.409		mg/Kg		113	70 <sub>-</sub> 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130

TestAmerica Buffalo

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RPD

Limit

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-143062/9

Matrix: Solid

Client Sample ID: Method Blank **Prep Type: Total/NA** 

	МВ								
Analyte		Qualifier	RL _		Unit	D Pr	epared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00250		0.00250	0.000500	mg/Kg			10/07/13 00:28	
1,1,1-Trichloroethane	<0.00250		0.00250	0.000363				10/07/13 00:28	
1,1,2,2-Tetrachloroethane	<0.00250		0.00250	0.000811	mg/Kg			10/07/13 00:28	
1,1,2-Trichloroethane	<0.00250		0.00250	0.000650	mg/Kg			10/07/13 00:28	
1,1-Dichloroethane	<0.00250		0.00250	0.000610	mg/Kg			10/07/13 00:28	
1,1-Dichloroethene	<0.00250		0.00250	0.000612	mg/Kg			10/07/13 00:28	
1,1-Dichloropropene	<0.00250		0.00250	0.000710	mg/Kg			10/07/13 00:28	
1,2,3-Trichlorobenzene	<0.00250		0.00250	0.000531	mg/Kg			10/07/13 00:28	
1,2,3-Trichloropropane	<0.00250		0.00250	0.000509	mg/Kg			10/07/13 00:28	
1,2,4-Trichlorobenzene	<0.00250		0.00250	0.000304	mg/Kg			10/07/13 00:28	
1,2,4-Trimethylbenzene	< 0.00250		0.00250	0.000960	mg/Kg			10/07/13 00:28	
1,2-Dibromo-3-Chloropropane	<0.0250		0.0250	0.00250	mg/Kg			10/07/13 00:28	
1,2-Dichlorobenzene	<0.00250		0.00250	0.000391	mg/Kg			10/07/13 00:28	
1,2-Dichloroethane	< 0.00250		0.00250	0.000251	mg/Kg			10/07/13 00:28	
1,2-Dichloropropane	<0.00250		0.00250	0.00250				10/07/13 00:28	
1,3,5-Trimethylbenzene	<0.00250		0.00250	0.000322				10/07/13 00:28	
1,3-Dichlorobenzene	< 0.00250		0.00250	0.000257				10/07/13 00:28	
1,3-Dichloropropane	<0.00250		0.00250	0.000300	mg/Kg			10/07/13 00:28	
1,4-Dichlorobenzene	<0.00250		0.00250	0.000700	mg/Kg			10/07/13 00:28	
1,4-Dioxane	<0.250		0.250	0.0241				10/07/13 00:28	
2,2-Dichloropropane	<0.00250		0.00250	0.000850	mg/Kg			10/07/13 00:28	
2-Butanone (MEK)	<0.0250		0.0250	0.00183				10/07/13 00:28	
2-Chlorotoluene	<0.00250		0.00250	0.000328	mg/Kg			10/07/13 00:28	
2-Hexanone	<0.0250		0.0250	0.00250				10/07/13 00:28	
4-Chlorotoluene	<0.00250		0.00250	0.000590				10/07/13 00:28	
4-Isopropyltoluene	<0.00250		0.00250	0.000390				10/07/13 00:28	
4-Nethyl-2-pentanone (MIBK)	<0.00250		0.0250	0.00164				10/07/13 00:28	
				0.00104					
Acetone	<0.250		0.250					10/07/13 00:28	
Benzene	<0.00250		0.00250	0.000245				10/07/13 00:28	
Bromobenzene	<0.00250		0.00250	0.000880				10/07/13 00:28	
Bromoform	<0.00250		0.00250	0.00250				10/07/13 00:28	
Bromomethane	<0.00500		0.00500	0.000450	0 0			10/07/13 00:28	
Carbon disulfide	<0.00250		0.00250	0.00250				10/07/13 00:28	
Carbon tetrachloride	<0.00250		0.00250	0.000484				10/07/13 00:28	
Chlorobenzene	<0.00250		0.00250	0.000660				10/07/13 00:28	
Chlorobromomethane	<0.00250		0.00250	0.000361				10/07/13 00:28	
Chlorodibromomethane	<0.00250		0.00250	0.000640				10/07/13 00:28	
Chloroethane	<0.00500		0.00500	0.00113				10/07/13 00:28	
Chloroform	<0.00250		0.00250	0.000309	mg/Kg			10/07/13 00:28	
Chloromethane	<0.00500		0.00500	0.000302	mg/Kg			10/07/13 00:28	
cis-1,2-Dichloroethene	<0.00250		0.00250	0.000640	mg/Kg			10/07/13 00:28	
cis-1,3-Dichloropropene	<0.00250		0.00250	0.000720	mg/Kg			10/07/13 00:28	
Dichlorobromomethane	<0.00250		0.00250	0.000670	mg/Kg			10/07/13 00:28	
Dichlorodifluoromethane	<0.00500		0.00500	0.000413	mg/Kg			10/07/13 00:28	
Ethyl ether	<0.00250		0.00250	0.00210	mg/Kg			10/07/13 00:28	
Ethylbenzene	<0.00250		0.00250	0.000345	mg/Kg			10/07/13 00:28	
Ethylene Dibromide	<0.00250		0.00250	0.000642	mg/Kg			10/07/13 00:28	
Hexachlorobutadiene	< 0.00250		0.00250	0.000586	mg/Ka			10/07/13 00:28	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-143062/9

**Matrix: Solid** 

Analysis Batch: 143062

Client Sample ID: Method Blank Prep Type: Total/NA

MB	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00250		0.00250	0.00250	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000754	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000491	mg/Kg			10/07/13 00:28	•
<0.00250		0.00250	0.00230	mg/Kg			10/07/13 00:28	
<0.00500		0.00500	0.000840	mg/Kg			10/07/13 00:28	
<0.0250		0.0250	0.000670	mg/Kg			10/07/13 00:28	•
<0.00250		0.00250	0.000435	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000400	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000653	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000435	mg/Kg			10/07/13 00:28	• • • • • • • • • • • • • • • • • • • •
<0.00250		0.00250	0.000250	mg/Kg			10/07/13 00:28	•
<0.00250		0.00250	0.00128	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.00220	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000520	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000671	mg/Kg			10/07/13 00:28	
<0.0500		0.0500	0.00460	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000378	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.000516	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.00220	mg/Kg			10/07/13 00:28	
<0.00250		0.00250	0.00110	mg/Kg			10/07/13 00:28	
	Result <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250	Result Qualifier  <0.00250 <0.00250 <0.00250 <0.00250 <0.0050 <0.0050 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250 <0.00250	Result         Qualifier         RL           <0.00250	Result         Qualifier         RL         MDL           <0.00250	Result         Qualifier         RL         MDL         Unit           <0.00250	Result         Qualifier         RL         MDL         Unit         D           <0.00250	Result         Qualifier         RL         MDL         Unit         D         Prepared           <0.00250	Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed           <0.00250

MB MB

< 0.00500

<0.00250

<0.00250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		10/07/13 00:28	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		10/07/13 00:28	1
4-Bromofluorobenzene (Surr)	85		70 - 130		10/07/13 00:28	1

0.00500

0.00250

0.00250

0.000473 mg/Kg

0.000610 mg/Kg

0.000515 mg/Kg

Lab Sample ID: LCS 480-143062/7

**Matrix: Solid** 

Trichlorofluoromethane

Vinyl chloride

Dibromomethane

Analysis Batch: 143062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

10/07/13 00:28

10/07/13 00:28

10/07/13 00:28

•	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	0.0500	0.05241		mg/Kg		105	70 - 130
1,1,1-Trichloroethane	0.0500	0.05230		mg/Kg		105	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.04741		mg/Kg		95	70 - 130
1,1,2-Trichloroethane	0.0500	0.04788		mg/Kg		96	70 - 130
1,1-Dichloroethane	0.0500	0.05007		mg/Kg		100	70 - 130
1,1-Dichloroethene	0.0500	0.04969		mg/Kg		99	70 - 130
1,1-Dichloropropene	0.0500	0.04943		mg/Kg		99	70 - 130
1,2,3-Trichlorobenzene	0.0500	0.05215		mg/Kg		104	70 - 130
1,2,3-Trichloropropane	0.0500	0.04997		mg/Kg		100	70 - 130
1,2,4-Trichlorobenzene	0.0500	0.05425		mg/Kg		108	70 - 130
1,2,4-Trimethylbenzene	0.0500	0.05011		mg/Kg		100	70 - 130
1,2-Dibromo-3-Chloropropane	0.0500	0.04701		mg/Kg		94	70 - 130
1,2-Dichlorobenzene	0.0500	0.04919		mg/Kg		98	70 - 130
1,2-Dichloroethane	0.0500	0.05060		mg/Kg		101	70 - 130

# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-143062/7

Matrix: Solid

<b>Client Sample ID:</b>	<b>Lab Control Sample</b>
	Prep Type: Total/NA

Analysis Batch: 143062	Spike	LCS	LCS			%Rec.
Analyte	Added		Qualifier Unit	D	%Rec	Limits
1,2-Dichloropropane	0.0500	0.04679	mg/Kg		94	70 - 130
1,3,5-Trimethylbenzene	0.0500	0.04981	mg/Kg		100	70 - 130
1,3-Dichlorobenzene	0.0500	0.04871	mg/Kg		97	70 <sub>-</sub> 130
1,3-Dichloropropane	0.0500	0.04875	mg/Kg		97	70 - 130
1,4-Dichlorobenzene	0.0500	0.04694	mg/Kg		94	70 - 130
1,4-Dioxane	2.00	1.802	mg/Kg		90	70 - 130
2,2-Dichloropropane	0.0500	0.05237	mg/Kg		105	70 - 130
2-Butanone (MEK)	0.250	0.3011	mg/Kg		120	70 - 130
2-Chlorotoluene	0.0500	0.04926	mg/Kg		99	70 - 130
2-Hexanone	0.250	0.2337	mg/Kg		93	70 - 130
4-Chlorotoluene	0.0500	0.05115	mg/Kg		102	70 - 130
4-Isopropyltoluene	0.0500	0.05097	mg/Kg		102	70 - 130 70 - 130
4-Methyl-2-pentanone (MIBK)	0.250	0.2325	mg/Kg		93	70 - 130
Acetone (MIBIC)	0.250	0.2601			104	70 - 130
Benzene	0.0500	0.2601	mg/Kg		92	70 - 130 70 - 130
		0.04021	mg/Kg			70 - 130 70 - 130
Bromobenzene	0.0500		mg/Kg		99	
Bromoform	0.0500	0.04594	mg/Kg		92	70 <sub>-</sub> 130
Bromomethane	0.0500	0.04938	mg/Kg		99	70 - 130
Carbon disulfide	0.0500	0.05672	mg/Kg		113	70 - 130
Carbon tetrachloride	0.0500	0.05340	mg/Kg		107	70 - 130
Chlorobenzene	0.0500	0.04538	mg/Kg		91	70 - 130
Chlorobromomethane	0.0500	0.04897	mg/Kg		98	70 - 130
Chlorodibromomethane	0.0500	0.05329	mg/Kg		107	70 - 130
Chloroethane	0.0500	0.04644	mg/Kg		93	70 - 130
Chloroform	0.0500	0.04921	mg/Kg		98	70 - 130
Chloromethane	0.0500	0.04686	mg/Kg		94	70 - 130
cis-1,2-Dichloroethene	0.0500	0.04768	mg/Kg		95	70 - 130
cis-1,3-Dichloropropene	0.0500	0.05114	mg/Kg		102	70 - 130
Dichlorobromomethane	0.0500	0.05125	mg/Kg		103	70 - 130
Dichlorodifluoromethane	0.100	0.1217	mg/Kg		122	70 - 130
Ethyl ether	0.0500	0.04311	mg/Kg		86	70 - 130
Ethylbenzene	0.0500	0.04916	mg/Kg		98	70 - 130
Ethylene Dibromide	0.0500	0.04868	mg/Kg		97	70 - 130
Hexachlorobutadiene	0.0500	0.05241	mg/Kg		105	70 - 130
Isopropyl ether	0.0500	0.04468	mg/Kg		89	70 - 130
Isopropylbenzene	0.0500	0.04991	mg/Kg		100	70 - 130
Methyl tert-butyl ether	0.0500	0.04819	mg/Kg		96	70 - 130
Methylene Chloride	0.0500	0.04654	mg/Kg		93	70 - 130
m-Xylene & p-Xylene	0.100	0.09795	mg/Kg		98	70 - 130
Naphthalene	0.0500	0.04989	mg/Kg		100	70 - 130
n-Butylbenzene	0.0500	0.05049	mg/Kg		101	70 - 130
N-Propylbenzene	0.0500	0.04862	mg/Kg		97	70 - 130
o-Xylene	0.0500	0.04966	mg/Kg		99	70 - 130
sec-Butylbenzene	0.0500	0.04934	mg/Kg		99	70 _ 130
Styrene	0.0500	0.05001	mg/Kg		100	70 - 130
Tert-amyl methyl ether	0.0500	0.04584	mg/Kg		92	70 - 130
Tert-butyl ethyl ether	0.0500	0.04473	mg/Kg		89	70 - 130
tert-Butylbenzene	0.0500	0.05052	mg/Kg		101	70 - 130

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-143062/7

Matrix: Solid

Analysis Batch: 143062

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	0.0500	0.05636		mg/Kg		113	70 - 130	
Tetrahydrofuran	0.250	0.2129		mg/Kg		85	70 - 130	
Toluene	0.0500	0.04807		mg/Kg		96	70 - 130	
trans-1,2-Dichloroethene	0.0500	0.04836		mg/Kg		97	70 - 130	
trans-1,3-Dichloropropene	0.0500	0.05225		mg/Kg		104	70 - 130	
Trichloroethene	0.0500	0.04825		mg/Kg		96	70 - 130	
Trichlorofluoromethane	0.0500	0.05529		mg/Kg		111	70 - 130	
Vinyl chloride	0.0500	0.04852		mg/Kg		97	70 - 130	
Dibromomethane	0.0500	0.04948		mg/Kg		99	70 - 130	
				3 3				

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	109		70 - 130
4-Bromofluorobenzene (Surr)	89		70 - 130

Lab Sample ID: LCSD 480-143062/8

**Matrix: Solid** 

Client Sample ID: Lab	<b>Control Sample Dup</b>
	Prep Type: Total/NA

Analysis Batch: 143062									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	0.0500	0.05086		mg/Kg		102	70 - 130	3	20
1,1,1-Trichloroethane	0.0500	0.04916		mg/Kg		98	70 - 130	6	20
1,1,2,2-Tetrachloroethane	0.0500	0.04943		mg/Kg		99	70 - 130	4	20
1,1,2-Trichloroethane	0.0500	0.04829		mg/Kg		97	70 - 130	1	20
1,1-Dichloroethane	0.0500	0.04798		mg/Kg		96	70 - 130	4	20
1,1-Dichloroethene	0.0500	0.04733		mg/Kg		95	70 - 130	5	20
1,1-Dichloropropene	0.0500	0.04716		mg/Kg		94	70 - 130	5	20
1,2,3-Trichlorobenzene	0.0500	0.05358		mg/Kg		107	70 - 130	3	20
1,2,3-Trichloropropane	0.0500	0.05134		mg/Kg		103	70 - 130	3	20
1,2,4-Trichlorobenzene	0.0500	0.05270		mg/Kg		105	70 - 130	3	20
1,2,4-Trimethylbenzene	0.0500	0.04921		mg/Kg		98	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	0.0500	0.05052		mg/Kg		101	70 - 130	7	20
1,2-Dichlorobenzene	0.0500	0.04830		mg/Kg		97	70 - 130	2	20
1,2-Dichloroethane	0.0500	0.05008		mg/Kg		100	70 - 130	1	20
1,2-Dichloropropane	0.0500	0.04604		mg/Kg		92	70 - 130	2	20
1,3,5-Trimethylbenzene	0.0500	0.04815		mg/Kg		96	70 - 130	3	20
1,3-Dichlorobenzene	0.0500	0.04766		mg/Kg		95	70 - 130	2	20
1,3-Dichloropropane	0.0500	0.04880		mg/Kg		98	70 - 130	0	20
1,4-Dichlorobenzene	0.0500	0.04603		mg/Kg		92	70 - 130	2	20
1,4-Dioxane	2.00	1.833		mg/Kg		92	70 - 130	2	20
2,2-Dichloropropane	0.0500	0.04979		mg/Kg		100	70 - 130	5	20
2-Butanone (MEK)	0.250	0.3218		mg/Kg		129	70 - 130	7	20
2-Chlorotoluene	0.0500	0.04741		mg/Kg		95	70 - 130	4	20
2-Hexanone	0.250	0.2513		mg/Kg		101	70 - 130	7	20
4-Chlorotoluene	0.0500	0.04929		mg/Kg		99	70 - 130	4	20
4-Isopropyltoluene	0.0500	0.04883		mg/Kg		98	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	0.250	0.2471		mg/Kg		99	70 - 130	6	20
Acetone	0.250	0.2750		mg/Kg		110	70 - 130	6	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-143062/8

Matrix: Solid

Analysis Batch: 143062

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

RPD

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04489		mg/Kg		90	70 - 130	3	20
Bromobenzene	0.0500	0.04923		mg/Kg		98	70 - 130	0	20
Bromoform	0.0500	0.04715		mg/Kg		94	70 - 130	3	20
Bromomethane	0.0500	0.04984		mg/Kg		100	70 - 130	1	20
Carbon disulfide	0.0500	0.05324		mg/Kg		106	70 - 130	6	20
Carbon tetrachloride	0.0500	0.05020		mg/Kg		100	70 - 130	6	20
Chlorobenzene	0.0500	0.04401		mg/Kg		88	70 - 130	3	20
Chlorobromomethane	0.0500	0.04870		mg/Kg		97	70 - 130	1	20
Chlorodibromomethane	0.0500	0.05336		mg/Kg		107	70 - 130	0	20
Chloroethane	0.0500	0.04931		mg/Kg		99	70 - 130	6	20
Chloroform	0.0500	0.04781		mg/Kg		96	70 - 130	3	20
Chloromethane	0.0500	0.04580		mg/Kg		92	70 - 130	2	20
cis-1,2-Dichloroethene	0.0500	0.04635		mg/Kg		93	70 - 130	3	20
cis-1,3-Dichloropropene	0.0500	0.05012		mg/Kg		100	70 - 130	2	20
Dichlorobromomethane	0.0500	0.04980		mg/Kg		100	70 - 130	3	20
Dichlorodifluoromethane	0.100	0.1150		mg/Kg		115	70 - 130	6	20
Ethyl ether	0.0500	0.04384		mg/Kg		88	70 - 130	2	20
Ethylbenzene	0.0500	0.04700		mg/Kg		94	70 - 130	4	20
Ethylene Dibromide	0.0500	0.05103		mg/Kg		102	70 - 130	5	20
Hexachlorobutadiene	0.0500	0.04924		mg/Kg		98	70 - 130	6	20
Isopropyl ether	0.0500	0.04406		mg/Kg		88	70 - 130	1	20
Isopropylbenzene	0.0500	0.04806		mg/Kg		96	70 - 130	4	20
Methyl tert-butyl ether	0.0500	0.04949		mg/Kg		99	70 - 130	3	20
Methylene Chloride	0.0500	0.04509		mg/Kg		90	70 - 130	3	20
m-Xylene & p-Xylene	0.100	0.09347		mg/Kg		93	70 - 130	5	20
Naphthalene	0.0500	0.05326		mg/Kg		107	70 - 130	7	20
n-Butylbenzene	0.0500	0.04849		mg/Kg		97	70 - 130	4	20
N-Propylbenzene	0.0500	0.04728		mg/Kg		95	70 - 130	3	20
o-Xylene	0.0500	0.04786		mg/Kg		96	70 - 130	4	20
sec-Butylbenzene	0.0500	0.04748		mg/Kg		95	70 - 130	4	20
Styrene	0.0500	0.04875		mg/Kg		97	70 - 130	3	20
Tert-amyl methyl ether	0.0500	0.04659		mg/Kg		93	70 - 130	2	20
Tert-butyl ethyl ether	0.0500	0.04498		mg/Kg		90	70 - 130	1	20
tert-Butylbenzene	0.0500	0.04752		mg/Kg		95	70 - 130	6	20
Tetrachloroethene	0.0500	0.05425		mg/Kg		108	70 - 130	4	20
Tetrahydrofuran	0.250	0.2326		mg/Kg		93	70 - 130	9	20
Toluene	0.0500	0.04657		mg/Kg		93	70 - 130	3	20
trans-1,2-Dichloroethene	0.0500	0.04555		mg/Kg		91	70 - 130	6	20
trans-1,3-Dichloropropene	0.0500	0.05172		mg/Kg		103	70 - 130	1	20
Trichloroethene	0.0500	0.04600		mg/Kg		92	70 - 130	5	20
Trichlorofluoromethane	0.0500	0.05411		mg/Kg		108	70 - 130	2	20
Vinyl chloride	0.0500	0.04709		mg/Kg		94	70 - 130	3	20
Dibromomethane	0.0500	0.04923		mg/Kg		98	70 - 130	1	20

.CSD LCSD	

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	88		70 - 130

TestAmerica Buffalo

1

5

7

4 4

12

1 %

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

MB MB

87

89

%Recovery

Qualifier

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 142077

Matrix: Solid
Analysis Batch: 142133

Lab Sample ID: MB 480-142077/1-A

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.0500		0.0500	0.0100	mg/Kg		10/01/13 12:20	10/01/13 17:11	1
C5-C8 Aliphatics (unadjusted)	0.01748	J	0.250	0.0100	mg/Kg		10/01/13 12:20	10/01/13 17:11	1
C9-C10 Aromatics	<0.250		0.250	0.0100	mg/Kg		10/01/13 12:20	10/01/13 17:11	1
C9-C12 Aliphatics (unadjusted)	<0.250		0.250	0.0100	mg/Kg		10/01/13 12:20	10/01/13 17:11	1

Limits

70 - 130

70 - 130

Prepared Dil Fac Analyzed 10/01/13 12:20 10/01/13 17:11 10/01/13 12:20 10/01/13 17:11

Lab Sample ID: LCS 480-142077/2-A

**Matrix: Solid** Analysis Batch: 142133

2,5-Dibromotoluene (fid)

2,5-Dibromotoluene (pid)

Surrogate

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA **Prep Batch: 142077** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	0.250	0.2420		mg/Kg		97	70 - 130	
C5-C8 Aliphatics (unadjusted)	0.750	0.6891		mg/Kg		92	70 - 130	
C9-C10 Aromatics	0.250	0.2333	J	mg/Kg		93	70 - 130	
C9-C12 Aliphatics (unadjusted)	0.750	0.7179		mg/Kg		96	70 - 130	

LCS LCS %Recovery Qualifier Limits Surrogate 87 70 - 130 2,5-Dibromotoluene (fid) 2,5-Dibromotoluene (pid) 88 70 - 130

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA Prep Batch: 142077

**Matrix: Solid** Analysis Batch: 142133

Lab Sample ID: LCSD 480-142077/3-A

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.250	0.2439		mg/Kg		98	70 - 130	1	25
C5-C8 Aliphatics (unadjusted)	0.750	0.6845		mg/Kg		91	70 - 130	1	25
C9-C10 Aromatics	0.250	0.2356	J	mg/Kg		94	70 - 130	1	25
C9-C12 Aliphatics (unadjusted)	0.750	0.7232		mg/Kg		96	70 - 130	1	25

LCSD LCSD %Recovery Qualifier Limits Surrogate 2,5-Dibromotoluene (fid) 89 70 - 130 70 - 130 2,5-Dibromotoluene (pid) 90

Lab Sample ID: MB 480-142333/1-A Client Sample ID: Method Blank **Matrix: Solid** 

Prep Type: Total/NA Analysis Batch: 142270 Prep Batch: 142333

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0500		0.0500	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
Ethylbenzene	<0.0500		0.0500	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
Methyl tert-butyl ether	<0.0500		0.0500	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
m-Xylene & p-Xylene	<0.100		0.100	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
Naphthalene	0.01841	J	0.0500	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

# Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

MR MR

Lab Sample ID: MB 480-142333/1-A

**Matrix: Solid** 

Analysis Batch: 142270

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 142333

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.0500		0.0500	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
Toluene	<0.0500		0.0500	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
C5-C8 Aliphatics (unadjusted)	0.01053	J	0.250	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
C9-C10 Aromatics	<0.250		0.250	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1
C9-C12 Aliphatics (unadjusted)	0.01307	J	0.250	0.0100	mg/Kg		10/02/13 09:15	10/02/13 11:02	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	84		70 - 130	10/02/13 09:15	10/02/13 11:02	1
2,5-Dibromotoluene (pid)	87		70 - 130	10/02/13 09:15	10/02/13 11:02	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 142333

**Matrix: Solid** Analysis Batch: 142270

Lab Sample ID: LCS 480-142333/2-A

Lab Sample ID: LCSD 480-142333/3-A

**Matrix: Solid** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.250	0.2501		mg/Kg		100	70 - 130	
Ethylbenzene	0.250	0.2522		mg/Kg		101	70 - 130	
Methyl tert-butyl ether	0.250	0.2458		mg/Kg		98	70 - 130	
m-Xylene & p-Xylene	0.500	0.5219		mg/Kg		104	70 _ 130	
Naphthalene	0.250	0.2149		mg/Kg		86	70 - 130	
o-Xylene	0.250	0.2495		mg/Kg		100	70 - 130	
Toluene	0.250	0.2474		mg/Kg		99	70 - 130	
C5-C8 Aliphatics (unadjusted)	0.750	0.6939		mg/Kg		93	70 - 130	
C9-C10 Aromatics	0.250	0.2485	J	mg/Kg		99	70 - 130	
C9-C12 Aliphatics (unadjusted)	0.750	0.7436		mg/Kg		99	70 - 130	

	LCS LCS	
Surrogate	%Recovery Qualifier	Limits
2,5-Dibromotoluene (fid)	87	70 - 130
2,5-Dibromotoluene (pid)	91	70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 142333

Analysis Batch: 142270 LCSD LCSD Spike %Rec. RPD Analyte Added Limit Result Qualifier Unit %Rec Limits RPD Benzene 0.250 0.2464 mg/Kg 99 70 - 130 25 0.250 0.2485 70 - 130 Ethylbenzene 99 2 25 mg/Kg Methyl tert-butyl ether 0.250 0.2545 mg/Kg 102 70 - 130 25 0.500 0.5105 70 - 130 25 m-Xylene & p-Xylene 102 mg/Kg Naphthalene 0.250 0.2248 mg/Kg 90 70 - 130 25 0.250 0.2452 98 70 - 130 25 o-Xylene mg/Kg Toluene 0.250 0.2439 mg/Kg 98 70 - 130 25 C5-C8 Aliphatics (unadjusted) 0.750 0.6811 91 70 - 130 2 25 mg/Kg 0.250 C9-C10 Aromatics 0.2419 J mg/Kg 97 70 - 130 3 25 C9-C12 Aliphatics (unadjusted) 0.750 0.7389 mg/Kg 70 - 130 25

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-142333/3-A

Lab Sample ID: MB 480-142561/1-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 142270** 

Analysis Batch: 142439

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 142333

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
2,5-Dibromotoluene (fid)	89		70 - 130
2,5-Dibromotoluene (pid)	92		70 - 130

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 142561** 

MB MB

Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac <0.0500 10/03/13 08:21 Toluene 0.0500 0.0100 mg/Kg 10/03/13 07:29 C5-C8 Aliphatics (unadjusted) 0.02244 J 0.250 0.0100 mg/Kg 10/03/13 07:29 10/03/13 08:21 < 0.250 C9-C10 Aromatics 0.250 0.0100 mg/Kg 10/03/13 07:29 10/03/13 08:21 C9-C12 Aliphatics (unadjusted) 0.01193 J 0.250 0.0100 mg/Kg 10/03/13 07:29 10/03/13 08:21

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	79		70 - 130	10/03/13 07:29	10/03/13 08:21	1
2,5-Dibromotoluene (pid)	83		70 - 130	10/03/13 07:29	10/03/13 08:21	1

Lab Sample ID: LCS 480-142561/2-A

Lab Sample ID: LCSD 480-142561/3-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 142439

Analysis Batch: 142439

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142561

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Toluene 0.250 0.2689 108 70 - 130 mg/Kg 0.750 C5-C8 Aliphatics (unadjusted) 0.7765 mg/Kg 104 70 - 130 0.250 0.2601 104 70 - 130 C9-C10 Aromatics mg/Kg 0.750 C9-C12 Aliphatics (unadjusted) 0.7872 105 70 - 130 mg/Kg

LCS LCS

Surrogate	%Recovery Q	ualifier	Limits
2,5-Dibromotoluene (fid)	86		70 - 130
2,5-Dibromotoluene (pid)	90		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Prep Batch: 142561** 

Spike LCSD LCSD %Rec. RPD Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.250 0.2652 Toluene mg/Kg 106 70 - 130 25 C5-C8 Aliphatics (unadjusted) 0.750 0.7564 mg/Kg 101 70 - 130 3 25 C9-C10 Aromatics 0.250 0.2586 mg/Kg 103 70 - 130 25 C9-C12 Aliphatics (unadjusted) 0.750 0.7830 mg/Kg 104 70 - 130 25

LCSD LCSD

Surrogate	%Recovery Quali	fier Limits
2,5-Dibromotoluene (fid)	86	70 - 130
2.5-Dibromotoluene (pid)	88	70 - 130

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

#### Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 240-103632/17-A

**Matrix: Solid** 

Analysis Batch: 104106

Client Sample ID: Method Blank

**Prep Batch: 103632** 

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		10/01/13 09:24	10/03/13 22:52	
PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		10/01/13 09:24	10/03/13 22:52	
PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		10/01/13 09:24	10/03/13 22:52	
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		10/01/13 09:24	10/03/13 22:52	•
PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		10/01/13 09:24	10/03/13 22:52	
PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		10/01/13 09:24	10/03/13 22:52	
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		10/01/13 09:24	10/03/13 22:52	
PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		10/01/13 09:24	10/03/13 22:52	
PCB-1268	<0.0330		0.0330	0.0140	mg/Kg		10/01/13 09:24	10/03/13 22:52	

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		30 - 150	10/01/13 09:24	10/03/13 22:52	1
Tetrachloro-m-xylene	104		30 - 150	10/01/13 09:24	10/03/13 22:52	1
DCB Decachlorobiphenyl	87		30 - 150	10/01/13 09:24	10/03/13 22:52	1
DCB Decachlorobiphenyl	98		30 - 150	10/01/13 09:24	10/03/13 22:52	1

Client Sample ID: Lab Control Sample

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 104106** 

Lab Sample ID: LCS 240-103632/18-A

Lab Sample ID: LCSD 240-103632/19-A

Prep Type: Total/NA Prep Batch: 103632

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	0.333	0.2862		mg/Kg		86	40 - 140	
PCB-1260	0.333	0.3211		mg/Kg		96	40 - 140	

LCS LCS %Recovery Qualifier Surrogate Limits 30 - 150 Tetrachloro-m-xylene 83 103 30 - 150 Tetrachloro-m-xylene DCB Decachlorobiphenyl 86 30 - 150 DCB Decachlorobiphenyl 96 30 - 150

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

**Prep Batch: 103632** 

Analysis Batch: 104106									<b>Prep Batch: 103632</b>				
	Spike	LCSD	LCSD				%Rec.		RPD				
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit				
PCB-1016	0.333	0.3018		mg/Kg		91	40 - 140	5	30				
PCB-1260	0.333	0.3234		ma/Ka		97	40 - 140	1	30				

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	90		30 - 150
Tetrachloro-m-xylene	93		30 - 150
DCB Decachlorobiphenyl	84		30 - 150
DCB Decachlorobiphenyl	92		30 _ 150

40 - 140

₽

397

10/01/13 10:09

10/01/13 10:09

mg/Kg

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

PCB-1260

PCB-1262

PCB-1268

9

#### Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

37.5

Lab Sample ID: 480-46783-14 M Matrix: Solid	S						C	Client Sa	•	VCSB-5 (2.5-3) Γype: Total/NA
Analysis Batch: 104275									Prep	Batch: 103632
-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	<19.8		0.400	<19.8		mg/Kg	<u> </u>	NC	40 - 140	

39.09 4

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene		X	30 - 150
Tetrachloro-m-xylene	0	Χ	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150

0.400

Lab Sample ID: 480-46783-14 MSD

Matrix: Solid

Analysis Batch: 104275

Client Sample ID: WCSB-5 (2.5-3)

Prep Type: Total/NA

Prep Batch: 103632

MSD MSD Sample Sample Spike %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit PCB-1016 <19.8 0.396 <19.6 ₩ NC 40 \_ 140 NC mg/Kg 50 PCB-1260 0.396 ₩ 37.5 36.14 4 mg/Kg -344 40 - 140 8 50

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene		X	30 - 150
Tetrachloro-m-xylene	0	X	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150

<0.0330

< 0.0330

Lab Sample ID: MB 240-103651/23-A

Matrix: Solid

Analysis Batch: 103948

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 103651

мв мв Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac PCB-1016 <0.0330 0.0330 0.0210 mg/Kg 10/01/13 10:09 10/03/13 11:41 PCB-1221 <0.0330 0.0330 0.0160 mg/Kg 10/01/13 10:09 10/03/13 11:41 PCB-1232 <0.0330 0.0330 0.0140 mg/Kg 10/01/13 10:09 10/03/13 11:41 PCB-1242 < 0.0330 0.0330 0.0130 mg/Kg 10/01/13 10:09 10/03/13 11:41 PCB-1248 <0.0330 0.0330 0.0170 mg/Kg 10/01/13 10:09 10/03/13 11:41 PCB-1254 <0.0330 0.0330 10/01/13 10:09 10/03/13 11:41 0.0170 mg/Kg PCB-1260 < 0.0330 0.0330 0.0170 mg/Kg 10/01/13 10:09 10/03/13 11:41

	MB MB				
Surrogate	%Recovery Qualifie	er Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82	30 - 150	10/01/13 10:09	10/03/13 11:41	1
Tetrachloro-m-xylene	222 X	30 _ 150	10/01/13 10:09	10/03/13 11:41	1
DCB Decachlorobiphenyl	85	30 - 150	10/01/13 10:09	10/03/13 11:41	1
DCB Decachlorobiphenyl	91	30 - 150	10/01/13 10:09	10/03/13 11:41	1

0.0330

0.0330

0.0270 mg/Kg

0.0140 mg/Kg

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10/03/13 11:41

10/03/13 11:41

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Lab Sample ID: LCS 240-103651/24-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 104145 **Prep Batch: 103651** 

	Spike	LCS LCS				%Rec.	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	
PCB-1016	0.333	0.2593	mg/Kg	_	78	40 - 140	
PCB-1260	0.333	0.2729	mg/Kg		82	40 - 140	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	85		30 - 150
Tetrachloro-m-xylene	87		30 - 150
DCB Decachlorobiphenyl	67		30 - 150
DCB Decachlorobiphenyl	212	X	30 - 150

Lab Sample ID: LCSD 240-103651/25-A

**Matrix: Solid** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 103651** 

Analysis Batch: 104246 Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier %Rec Limits RPD Limit Unit PCB-1016 0.333 40 \_ 140 30 0.2902 mg/Kg 87 11 PCB-1260 0.333 0.2867 mg/Kg 86 40 - 140 5 30

LCSD LCSD Qualifier Limits Surrogate %Recovery 30 - 150 88 Tetrachloro-m-xylene Tetrachloro-m-xylene 92 30 - 150 DCB Decachlorobiphenyl 64 30 - 150 DCB Decachlorobiphenyl 80 30 - 150

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-141819/1-B Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 142271 **Prep Batch: 141819** MD MD

	IND	IAID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	<4.88		4.88	1.95	mg/Kg		09/30/13 08:34	10/02/13 12:23	1
C19-C36 Aliphatics	<4.88		4.88	1.95	mg/Kg		09/30/13 08:34	10/02/13 12:23	1
C9-C18 Aliphatics	2.124	J	4.88	1.95	mg/Kg		09/30/13 08:34	10/02/13 12:23	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	56		40 - 140	09/30/13 08:34	10/02/13 12:23	1
2-Bromonaphthalene	95		40 - 140	09/30/13 08:34	10/02/13 12:23	1
2-Fluorobiphenyl	107		40 - 140	09/30/13 08:34	10/02/13 12:23	1
o-Terphenyl	92		40 - 140	09/30/13 08:34	10/02/13 12:23	1

Lab Sample ID: LCS 480-141819/2-B **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 142271							Prep	Batch: 141819
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
C11-C22 Aromatics (unadjusted)	81.6	73.42		mg/Kg		90	40 - 140	
C19-C36 Aliphatics	38.4	27.25		mg/Kg		71	40 - 140	

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Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-141819/2-B **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 142271 Prep Batch: 141819** LCS LCS Spike

Analyte Added Result Qualifier Limits Unit D %Rec C9-C18 Aliphatics 28.8 18.09 63 40 - 140 mg/Kg

LCS LCS Surrogate %Recovery Qualifier Limits 61 40 - 140 1-Chlorooctadecane 99 40 - 140 2-Bromonaphthalene 40 - 140 2-Fluorobiphenyl 113 o-Terphenyl 94 40 - 140

Lab Sample ID: LCSD 480-141819/3-B

**Matrix: Solid** 

Analysis Batch: 142271

**Prep Batch: 141819** Spike LCSD LCSD %Rec. RPD Analyte babbA Result Qualifier %Rec Limits RPD Limit Unit 3 C11-C22 Aromatics (unadjusted) 81.3 70.92 mg/Kg 87 40 - 140 25 38.3 27.67 72 25 C19-C36 Aliphatics mg/Kg 40 - 140 2 C9-C18 Aliphatics 28.7 18.76 40 - 140 25 mg/Kg 65

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctadecane 40 - 140 62 2-Bromonaphthalene 99 40 - 140 40 - 140 2-Fluorobiphenyl 107 o-Terphenyl 91 40 - 140

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-141839/1-A Client Sample ID: Method Blank **Matrix: Solid** 

Prep Type: Total/NA Analysis Batch: 142236 **Prep Batch: 141839** MD MD

	MB	MR									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Silver	<0.551		0.551	0.220	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Arsenic	<1.10		1.10	0.441	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Barium	<0.551		0.551	0.121	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Beryllium	<0.220		0.220	0.0309	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Cadmium	<0.220	٨	0.220	0.0331	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Chromium	<0.551		0.551	0.220	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Nickel	<1.10		1.10	0.253	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Thallium	<1.10		1.10	0.331	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Vanadium	<0.551		0.551	0.121	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Zinc	0.2622	J	2.75	0.169	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Lead	<0.551		0.551	0.264	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Selenium	<0.551	٨	0.551	0.441	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		
Antimony	<0.551	^	0.551	0.441	mg/Kg		09/30/13 14:10	10/01/13 19:47	1		

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Matrix: Solid

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 480-141839/3-A LCDSRM

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 141839** 

matrixi cona								, po o		
Analysis Batch: 142236  Analyte			LCDSRM Qualifier	Unit	D		Prep l	Batch: 1	atch: 141839	
	Spike						%Rec.		RPD	
	Added					%Rec	Limits	RPD	Limit	
Silver	61.3	56.97		mg/Kg		92.9	66.9 - 133. 1	2	20	
Arsenic	182	174.6		mg/Kg		95.9	70.9 - 129. 7	2	20	
Barium	143	133.0		mg/Kg		93.0	72.7 - 128. 0	2	20	
Beryllium	98.3	94.27		mg/Kg		95.9	74.6 - 125. 1	1	20	
Cadmium	60.4	57.62	٨	mg/Kg		95.4	73.2 - 129. 3	2	20	
Chromium	125	113.4		mg/Kg		90.7	69.8 - 129. 6	1	20	
Nickel	128	125.9		mg/Kg		98.3	73.1 - 129. 7	2	20	
Thallium	144	141.6		mg/Kg		98.3	68.3 - 131. 9	3	20	
Vanadium	104	93.17		mg/Kg		89.6	66.0 - 133. 7	1	20	
Zinc	204	184.2		mg/Kg		90.3	69.6 - 129. 9	2	20	
Lead	136	131.1		mg/Kg		96.4	73.1 - 127. 2	2	20	
Selenium	85.9	81.26	۸	mg/Kg		94.6	63.9 - 136. 2	3	20	
Antimony	106	62.03	^	mg/Kg		58.5	23.1 - 255.	5	20	

**Client Sample ID: Lab Control Sample** 

Lab Sample ID: LCSSRM 480-141839/2-A Matrix: Solid Prep Type: Total/NA

Analysis Batch: 142236		LCSSRM	LCSSRM				Prep Batch:	141839
	Spike						%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silver	61.4	58.02		mg/Kg		94.5	66.9 - 133.	-
							1	
Arsenic	182	178.6		mg/Kg		98.0	70.9 - 129.	
							7	
Barium	143	135.8		mg/Kg		94.9	72.7 - 128.	
							0	
Beryllium	98.4	95.67		mg/Kg		97.2	74.6 - 125.	
Out to the	00.5	50.50	^			00.0	1	
Cadmium	60.5	58.58	^	mg/Kg		96.9	73.2 - 129.	
Chromium	125	115.0		mg/Kg		01.0	3 69.8 - 129.	
	125	113.0		ilig/itg		31.3	6	
Nickel	128	128.2		mg/Kg		100.0	73.1 - 129.	
		.20.2		919			7	
Thallium	144	145.9		mg/Kg		101.2	68.3 - 131.	
							9	
Vanadium	104	94.51		mg/Kg		90.8	66.0 - 133.	
							7	
Zinc	204	188.1		mg/Kg		92.1	69.6 - 129.	
							9	
Lead	136	133.9		mg/Kg		98.4	73.1 - 127.	
							2	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-141839/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 142236 **Prep Batch: 141839** 

LCSSRM LCSSRM

Spike Analyte Added Result Qualifier Limits Unit %Rec Selenium 83.43 ^ 86.0 97.0 63.9 - 136. mg/Kg Antimony 106 23.1 - 255. 58.92 ^ mg/Kg 55.5

Lab Sample ID: 480-46783-20 MS Client Sample ID: WCSB-1 (2.5-3) MS Matrix: Solid Prep Type: Total/NA

**Prep Batch: 141839** Analysis Batch: 142236

Allalysis batch. 142200									i icp batcii	141000
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silver	<0.711		13.9	11.38		mg/Kg	*	82	75 - 125	
Arsenic	19.3		55.6	70.50		mg/Kg	₽	92	75 <sub>-</sub> 125	
Barium	21.5		55.6	68.12		mg/Kg	₽	84	75 <sub>-</sub> 125	
Beryllium	0.577		55.6	47.13		mg/Kg	₽	84	75 <sub>-</sub> 125	
Cadmium	<0.284	^	55.6	47.45	۸	mg/Kg	₩	85	75 <sub>-</sub> 125	
Chromium	17.6		55.6	70.49		mg/Kg	₽	95	75 - 125	
Nickel	22.8		55.6	80.23		mg/Kg	₽	103	75 <sub>-</sub> 125	
Thallium	<1.42		55.6	51.69		mg/Kg	₩	93	75 <sub>-</sub> 125	
Vanadium	26.9		55.6	87.28		mg/Kg	₽	109	75 - 125	
Zinc	82.6	В	55.6	97.08	F	mg/Kg	₽	26	75 <sub>-</sub> 125	
Lead	183		55.6	227.5		mg/Kg	₩	81	75 - 125	
Selenium	1.10	٨	55.6	47.92	۸	mg/Kg	₽	84	75 <sub>-</sub> 125	
Antimony	<0.711	^	55.6	40.86	^ F	mg/Kg	\$	74	75 <sub>-</sub> 125	

Lab Sample ID: 480-46783-20 MSD Client Sample ID: WCSB-1 (2.5-3) MSD **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 142236 **Prep Batch: 141839** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	<0.711		15.4	13.17		mg/Kg	<u></u>	85	75 - 125	15	35
Arsenic	19.3		61.8	74.30		mg/Kg	₩	89	75 - 125	5	35
Barium	21.5		61.8	74.22		mg/Kg	₩	85	75 - 125	9	35
Beryllium	0.577		61.8	54.23		mg/Kg	₩.	87	75 - 125	14	35
Cadmium	<0.284	^	61.8	54.68	٨	mg/Kg	₩	88	75 - 125	14	35
Chromium	17.6		61.8	82.12		mg/Kg	₩	104	75 - 125	15	35
Nickel	22.8		61.8	79.67		mg/Kg	₩	92	75 - 125	1	35
Thallium	<1.42		61.8	57.66		mg/Kg	₩	93	75 - 125	11	35
Vanadium	26.9		61.8	86.89		mg/Kg	₩	97	75 - 125	0	35
Zinc	82.6	В	61.8	98.36	F	mg/Kg	₩	26	75 - 125	1	35
Lead	183		61.8	376.0	F	mg/Kg	₩	313	75 - 125	49	35
Selenium	1.10	۸	61.8	53.83	۸	mg/Kg	₩	85	75 - 125	12	35
Antimony	<0.711	^	61.8	47.09	^	mg/Kg	₩.	76	75 - 125	14	35

# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 7471A - Mercury (CVAA)

Lab Sample ID: LCSSRM 480-141828/2-A

TestAmerica Job ID: 480-46783-1

**Client Sample ID: Lab Control Sample** 

Lab Sample ID: MB 480-141828/1-A	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Total/NA
Analysis Ratch: 141897	Pron Batch: 1/1929

Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Analyte <0.101 0.101 0.00814 mg/Kg 09/30/13 10:40 09/30/13 12:03

Lab Sample ID: LCDSRM 480-141828/23-A LCDSRM				Clien	t San	iple ID:	Lab Contro	I Sampl	e Dup
Matrix: Solid							Prep T	ype: To	tal/NA
Analysis Batch: 141897							Prep E	Batch: 1	41828
	Spike	LCDSRM	LCDSRM				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	3.77	3.629		mg/Kg		96.3	50.9 - 149.	4	
							1		
_									

Matrix: Solid							Prep T	ype: Total/NA
Analysis Batch: 141897							Prep	Batch: 141828
	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	3.77	3.778		mg/Kg		100.2	50.9 - 149.	
							1	

Lab Sample ID: 480-46783-20 MS Matrix: Solid							Clien	t Sampl		B-1 (2.5-3) MS Type: Total/NA
Analysis Batch: 141897									•	Batch: 141828
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	0.0171	J	0.468	0.4809		mg/Kg	<u> </u>	99	75 - 125	

Lab Sample ID: 480-46783-20 MSD Matrix: Solid							Client	Sample	ID: WCSB-	1 (2.5-3 ype: To	•
Analysis Batch: 141897	Sample	Sample	Spike	MSD	MSD				Prep E	Batch: 1	41828 RPD
Analyte	•	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.0171	J	0.465	0.4614		mg/Kg	₽	96	75 - 125	4	35

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### **GC/MS VOA**

# Analysis Batch: 142036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-5	WCSB-7 (7.5-8)	Total/NA	Solid	8260C	142057
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	8260C	142057
480-46783-10	WCSB-6 (4-5)	Total/NA	Solid	8260C	142057
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	8260C	142057
480-46783-17	WCSB-4 (6-7)	Total/NA	Solid	8260C	142057
LCS 480-142036/6	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 480-142036/7	Lab Control Sample Dup	Total/NA	Solid	8260C	
MB 480-142036/8	Method Blank	Total/NA	Solid	8260C	

#### **Prep Batch: 142057**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-5	WCSB-7 (7.5-8)	Total/NA	Solid	5035	
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	5035	
480-46783-10	WCSB-6 (4-5)	Total/NA	Solid	5035	
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	5035	
480-46783-17	WCSB-4 (6-7)	Total/NA	Solid	5035	

#### Analysis Batch: 142288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	8260C	142297
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	8260C	142297
480-46783-15	TB-09252013	Total/NA	Solid	8260C	142297
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	8260C	142297
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	8260C	142297
LCS 480-142288/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 480-142288/5	Lab Control Sample Dup	Total/NA	Solid	8260C	
MB 480-142288/6	Method Blank	Total/NA	Solid	8260C	

#### **Prep Batch: 142297**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	5035	
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	5035	
480-46783-15	TB-09252013	Total/NA	Solid	5035	
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	5035	
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	5035	

#### Analysis Batch: 142492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	8260C	142564
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	8260C	142564
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	8260C	142564
LCS 480-142564/1-A	Lab Control Sample	Total/NA	Solid	8260C	142564
LCSD 480-142564/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	142564
MB 480-142564/3-A	Method Blank	Total/NA	Solid	8260C	142564

#### **Prep Batch: 142564**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	5035	
480-46783-6 - DL	WCSB-8 (2-2.5)	Total/NA	Solid	5035	
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	5035	
480-46783-12 - DL	WCSB-5 (0.5-1.5)	Total/NA	Solid	5035	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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# **GC/MS VOA (Continued)**

# Prep Batch: 142564 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	5035	
480-46783-13 - DL	WCSB-5 (5-6)	Total/NA	Solid	5035	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	5035	
480-46783-18	WCSB-2 (14-15)	Total/NA	Solid	5035	
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	5035	
LCS 480-142564/10-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 480-142564/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 480-142564/11-A	Lab Control Sample Dup	Total/NA	Solid	5035	
LCSD 480-142564/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 480-142564/12-A	Method Blank	Total/NA	Solid	5035	
MB 480-142564/3-A	Method Blank	Total/NA	Solid	5035	

#### Analysis Batch: 142727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-6 - DL	WCSB-8 (2-2.5)	Total/NA	Solid	8260C	142564
480-46783-12 - DL	WCSB-5 (0.5-1.5)	Total/NA	Solid	8260C	142564
480-46783-13 - DL	WCSB-5 (5-6)	Total/NA	Solid	8260C	142564
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	8260C	142564
480-46783-18	WCSB-2 (14-15)	Total/NA	Solid	8260C	142564
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	8260C	142564
LCS 480-142564/10-A	Lab Control Sample	Total/NA	Solid	8260C	142564
LCSD 480-142564/11-A	Lab Control Sample Dup	Total/NA	Solid	8260C	142564
MB 480-142564/12-A	Method Blank	Total/NA	Solid	8260C	142564

#### Analysis Batch: 143062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-22	WCSB-3 (5-6)	Total/NA	Solid	8260C	143065
LCS 480-143062/7	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 480-143062/8	Lab Control Sample Dup	Total/NA	Solid	8260C	
MB 480-143062/9	Method Blank	Total/NA	Solid	8260C	

#### **Prep Batch: 143065**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-22	WCSB-3 (5-6)	Total/NA	Solid	5035	

#### **GC VOA**

#### **Prep Batch: 142077**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	5035	<u> </u>
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	5035	
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	5035	
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	5035	
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	5035	
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	5035	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	5035	
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	5035	
LCS 480-142077/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 480-142077/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 480-142077/1-A	Method Blank	Total/NA	Solid	5035	

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

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# **GC VOA (Continued)**

# Analysis Batch: 142133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	MAVPH	142077
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	MAVPH	142077
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	MAVPH	142077
LCS 480-142077/2-A	Lab Control Sample	Total/NA	Solid	MAVPH	142077
LCSD 480-142077/3-A	Lab Control Sample Dup	Total/NA	Solid	MAVPH	142077
MB 480-142077/1-A	Method Blank	Total/NA	Solid	MAVPH	142077

#### Analysis Batch: 142270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	MAVPH	142077
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	MAVPH	142077
LCS 480-142333/2-A	Lab Control Sample	Total/NA	Solid	MAVPH	142333
LCSD 480-142333/3-A	Lab Control Sample Dup	Total/NA	Solid	MAVPH	142333
MB 480-142333/1-A	Method Blank	Total/NA	Solid	MAVPH	142333

#### Prep Batch: 142333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-142333/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 480-142333/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 480-142333/1-A	Method Blank	Total/NA	Solid	5035	

#### Analysis Batch: 142439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	MAVPH	142077
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	MAVPH	142077
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	MAVPH	142077
LCS 480-142561/2-A	Lab Control Sample	Total/NA	Solid	MAVPH	142561
LCSD 480-142561/3-A	Lab Control Sample Dup	Total/NA	Solid	MAVPH	142561
MB 480-142561/1-A	Method Blank	Total/NA	Solid	MAVPH	142561

#### **Prep Batch: 142561**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-142561/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 480-142561/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 480-142561/1-A	Method Blank	Total/NA	Solid	5035	

#### Analysis Batch: 143179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	MA VPH	
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	MA VPH	
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	MA VPH	
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	MA VPH	
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	MA VPH	
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	MA VPH	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	MA VPH	
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	MA VPH	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

GC Semi VOA

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Pren	Batch:	103632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	3540C	_
480-46783-7	WCSB-8 (2.5-3)	Total/NA	Solid	3540C	
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	3540C	
480-46783-9	WCSB-6 (2.5-3)	Total/NA	Solid	3540C	
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	3540C	
480-46783-14	WCSB-5 (2.5-3)	Total/NA	Solid	3540C	
480-46783-14 MS	WCSB-5 (2.5-3)	Total/NA	Solid	3540C	
480-46783-14 MSD	WCSB-5 (2.5-3)	Total/NA	Solid	3540C	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	3540C	
480-46783-17	WCSB-4 (6-7)	Total/NA	Solid	3540C	
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	3540C	
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	3540C	
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	3540C	
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	3540C	
480-46783-25	WCSB-9 (2.5-3)	Total/NA	Solid	3540C	
480-46783-26	WCSB-909 (2.5-3)	Total/NA	Solid	3540C	
LCS 240-103632/18-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-103632/19-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-103632/17-A	Method Blank	Total/NA	Solid	3540C	

# **Prep Batch: 103651**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-2	WCSB-11 (2.5-3)	Total/NA	Solid	3540C	
LCS 240-103651/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-103651/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-103651/23-A	Method Blank	Total/NA	Solid	3540C	

# Analysis Batch: 103948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-103651/23-A	Method Blank	Total/NA	Solid	8082	103651

#### Analysis Batch: 104106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	8082	103632
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	8082	103632
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	8082	103632
480-46783-17	WCSB-4 (6-7)	Total/NA	Solid	8082	103632
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	8082	103632
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	8082	103632
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	8082	103632
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	8082	103632
480-46783-25	WCSB-9 (2.5-3)	Total/NA	Solid	8082	103632
480-46783-26	WCSB-909 (2.5-3)	Total/NA	Solid	8082	103632
LCS 240-103632/18-A	Lab Control Sample	Total/NA	Solid	8082	103632
LCSD 240-103632/19-A	Lab Control Sample Dup	Total/NA	Solid	8082	103632
MB 240-103632/17-A	Method Blank	Total/NA	Solid	8082	103632

# Analysis Batch: 104145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-103651/24-A	Lab Control Sample	Total/NA	Solid	8082	103651

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

GC Semi VOA (Continued)

Analysis Batch: 104246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-2	WCSB-11 (2.5-3)	Total/NA	Solid	8082	103651
LCSD 240-103651/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	103651

Analysis Batch: 104275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	8082	103632
480-46783-7	WCSB-8 (2.5-3)	Total/NA	Solid	8082	103632
480-46783-14	WCSB-5 (2.5-3)	Total/NA	Solid	8082	103632
480-46783-14 MS	WCSB-5 (2.5-3)	Total/NA	Solid	8082	103632
480-46783-14 MSD	WCSB-5 (2.5-3)	Total/NA	Solid	8082	103632

Analysis Batch: 104379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-9	WCSB-6 (2.5-3)	Total/NA	Solid	8082	103632

**Prep Batch: 141819** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	3546	
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	3546	
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	3546	
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	3546	
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	3546	
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	3546	
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	3546	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	3546	
480-46783-17	WCSB-4 (6-7)	Total/NA	Solid	3546	
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	3546	
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	3546	
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	3546	
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	3546	
480-46783-24	WCSB-9 (1-2)	Total/NA	Solid	3546	
LCS 480-141819/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 480-141819/3-B	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 480-141819/1-B	Method Blank	Total/NA	Solid	3546	

Fraction Batch: 141975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	MA EPH Frac	141819
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	MA EPH Frac	141819
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	MA EPH Frac	141819
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	MA EPH Frac	141819
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	MA EPH Frac	141819
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	MA EPH Frac	141819
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	MA EPH Frac	141819
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	MA EPH Frac	141819
480-46783-17	WCSB-4 (6-7)	Total/NA	Solid	MA EPH Frac	141819
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	MA EPH Frac	141819
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	MA EPH Frac	141819
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	MA EPH Frac	141819
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	MA EPH Frac	141819
480-46783-24	WCSB-9 (1-2)	Total/NA	Solid	MA EPH Frac	141819

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

# GC Semi VOA (Continued)

#### Fraction Batch: 141975 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-141819/2-B	Lab Control Sample	Total/NA	Solid	MA EPH Frac	141819
LCSD 480-141819/3-B	Lab Control Sample Dup	Total/NA	Solid	MA EPH Frac	141819
MB 480-141819/1-B	Method Blank	Total/NA	Solid	MA EPH Frac	141819

#### Analysis Batch: 142271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	MA-EPH	141975
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	MA-EPH	141975
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	MA-EPH	141975
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	MA-EPH	141975
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	MA-EPH	141975
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	MA-EPH	141975
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	MA-EPH	141975
480-46783-17	WCSB-4 (6-7)	Total/NA	Solid	MA-EPH	141975
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	MA-EPH	141975
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	MA-EPH	141975
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	MA-EPH	141975
480-46783-23	WCSB-3 (7-8)	Total/NA	Solid	MA-EPH	141975
480-46783-24	WCSB-9 (1-2)	Total/NA	Solid	MA-EPH	141975
LCS 480-141819/2-B	Lab Control Sample	Total/NA	Solid	MA-EPH	141975
LCSD 480-141819/3-B	Lab Control Sample Dup	Total/NA	Solid	MA-EPH	141975
MB 480-141819/1-B	Method Blank	Total/NA	Solid	MA-EPH	141975

#### Analysis Batch: 142699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	MA-EPH	141975

#### Analysis Batch: 142792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	MA-EPH	_
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	MA-EPH	
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	MA-EPH	
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	MA-EPH	
480-46783-11	WCSB-6 (8-9)	Total/NA	Solid	MA-EPH	
480-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	MA-EPH	
180-46783-13	WCSB-5 (5-6)	Total/NA	Solid	MA-EPH	
180-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	MA-EPH	
180-46783-17	WCSB-4 (6-7)	Total/NA	Solid	MA-EPH	
180-46783-19	WCSB-1 (1-2)	Total/NA	Solid	MA-EPH	
180-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	MA-EPH	
180-46783-21	WCSB-1 (7-8)	Total/NA	Solid	MA-EPH	
80-46783-23	WCSB-3 (7-8)	Total/NA	Solid	MA-EPH	
180-46783-24	WCSB-9 (1-2)	Total/NA	Solid	MA-EPH	

#### **Metals**

### **Prep Batch: 141828**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-2	WCSB-11 (2.5-3)	Total/NA	Solid	7471A	
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	7471A	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals (Continued)** 

# Prep Batch: 141828 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-7	WCSB-8 (2.5-3)	Total/NA	Solid	7471A	
480-46783-9	WCSB-6 (2.5-3)	Total/NA	Solid	7471A	
480-46783-14	WCSB-5 (2.5-3)	Total/NA	Solid	7471A	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	7471A	
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	7471A	
480-46783-20 MS	WCSB-1 (2.5-3) MS	Total/NA	Solid	7471A	
480-46783-20 MSD	WCSB-1 (2.5-3) MSD	Total/NA	Solid	7471A	
480-46783-25	WCSB-9 (2.5-3)	Total/NA	Solid	7471A	
480-46783-27	WCSB-10 (2.5-3)	Total/NA	Solid	7471A	
LCDSRM 480-141828/23-A LCC	Lab Control Sample Dup	Total/NA	Solid	7471A	
LCSSRM 480-141828/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 480-141828/1-A	Method Blank	Total/NA	Solid	7471A	

# **Prep Batch: 141839**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-2	WCSB-11 (2.5-3)	Total/NA	Solid	3050B	
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	3050B	
480-46783-7	WCSB-8 (2.5-3)	Total/NA	Solid	3050B	
480-46783-9	WCSB-6 (2.5-3)	Total/NA	Solid	3050B	
480-46783-14	WCSB-5 (2.5-3)	Total/NA	Solid	3050B	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	3050B	
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	3050B	
480-46783-20 MS	WCSB-1 (2.5-3) MS	Total/NA	Solid	3050B	
480-46783-20 MSD	WCSB-1 (2.5-3) MSD	Total/NA	Solid	3050B	
480-46783-25	WCSB-9 (2.5-3)	Total/NA	Solid	3050B	
480-46783-27	WCSB-10 (2.5-3)	Total/NA	Solid	3050B	
LCDSRM 480-141839/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-141839/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-141839/1-A	Method Blank	Total/NA	Solid	3050B	

#### Analysis Batch: 141897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-2	WCSB-11 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-7	WCSB-8 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-9	WCSB-6 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-14	WCSB-5 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-20 MS	WCSB-1 (2.5-3) MS	Total/NA	Solid	7471A	141828
480-46783-20 MSD	WCSB-1 (2.5-3) MSD	Total/NA	Solid	7471A	141828
480-46783-25	WCSB-9 (2.5-3)	Total/NA	Solid	7471A	141828
480-46783-27	WCSB-10 (2.5-3)	Total/NA	Solid	7471A	141828
LCDSRM 480-141828/23-A LCC	Lab Control Sample Dup	Total/NA	Solid	7471A	141828
LCSSRM 480-141828/2-A	Lab Control Sample	Total/NA	Solid	7471A	141828
MB 480-141828/1-A	Method Blank	Total/NA	Solid	7471A	141828

# Analysis Batch: 142236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-2	WCSB-11 (2.5-3)	Total/NA	Solid	6010	141839
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	6010	141839

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

# **Metals (Continued)**

# Analysis Batch: 142236 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-7	WCSB-8 (2.5-3)	Total/NA	Solid	6010	141839
480-46783-9	WCSB-6 (2.5-3)	Total/NA	Solid	6010	141839
480-46783-14	WCSB-5 (2.5-3)	Total/NA	Solid	6010	141839
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	6010	141839
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	6010	141839
480-46783-20 MS	WCSB-1 (2.5-3) MS	Total/NA	Solid	6010	141839
480-46783-20 MSD	WCSB-1 (2.5-3) MSD	Total/NA	Solid	6010	141839
480-46783-25	WCSB-9 (2.5-3)	Total/NA	Solid	6010	141839
480-46783-27	WCSB-10 (2.5-3)	Total/NA	Solid	6010	141839
LCDSRM 480-141839/3-A LCE	DE Lab Control Sample Dup	Total/NA	Solid	6010	141839
LCSSRM 480-141839/2-A	Lab Control Sample	Total/NA	Solid	6010	141839
MB 480-141839/1-A	Method Blank	Total/NA	Solid	6010	141839

# Analysis Batch: 142509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	6010	141839

# **General Chemistry**

#### Analysis Batch: 104009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-26	WCSB-909 (2.5-3)	Total/NA	Solid	Moisture	

#### **Analysis Batch: 141727**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
480-46783-1	WCSB-11 (1-2)	Total/NA	Solid	Moisture	_
480-46783-2	WCSB-11 (2.5-3)	Total/NA	Solid	Moisture	
480-46783-3	WCSB-7 (2.5-3)	Total/NA	Solid	Moisture	
480-46783-4	WCSB-7 (4-5)	Total/NA	Solid	Moisture	
480-46783-5	WCSB-7 (7.5-8)	Total/NA	Solid	Moisture	
480-46783-6	WCSB-8 (2-2.5)	Total/NA	Solid	Moisture	
480-46783-7	WCSB-8 (2.5-3)	Total/NA	Solid	Moisture	
480-46783-8	WCSB-8 (7-8)	Total/NA	Solid	Moisture	
480-46783-9	WCSB-6 (2.5-3)	Total/NA	Solid	Moisture	
480-46783-10	WCSB-6 (4-5)	Total/NA	Solid	Moisture	
180-46783-11	WCSB-6 (8-9)	Total/NA	Solid	Moisture	
180-46783-12	WCSB-5 (0.5-1.5)	Total/NA	Solid	Moisture	
480-46783-13	WCSB-5 (5-6)	Total/NA	Solid	Moisture	
180-46783-14	WCSB-5 (2.5-3)	Total/NA	Solid	Moisture	
480-46783-16	WCSB-4 (2.5-3)	Total/NA	Solid	Moisture	
180-46783-17	WCSB-4 (6-7)	Total/NA	Solid	Moisture	
480-46783-18	WCSB-2 (14-15)	Total/NA	Solid	Moisture	
480-46783-19	WCSB-1 (1-2)	Total/NA	Solid	Moisture	
480-46783-20	WCSB-1 (2.5-3)	Total/NA	Solid	Moisture	
480-46783-20 MS	WCSB-1 (2.5-3) MS	Total/NA	Solid	Moisture	
480-46783-20 MSD	WCSB-1 (2.5-3) MSD	Total/NA	Solid	Moisture	
480-46783-21	WCSB-1 (7-8)	Total/NA	Solid	Moisture	
480-46783-22	WCSB-3 (5-6)	Total/NA	Solid	Moisture	
180-46783-23	WCSB-3 (7-8)	Total/NA	Solid	Moisture	
480-46783-24	WCSB-9 (1-2)	Total/NA	Solid	Moisture	

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-46783-1

# **General Chemistry (Continued)**

# Analysis Batch: 141727 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-46783-25	WCSB-9 (2.5-3)	Total/NA	Solid	Moisture	
480-46783-27	WCSB-10 (2.5-3)	Total/NA	Solid	Moisture	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-46783-1

**Matrix: Solid** 

Percent Solids: 97.7

Client Sample ID: WCSB-11 (1-2)

Date Collected: 09/25/13 09:15 Date Received: 09/28/13 01:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142297	10/02/13 11:15	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142288	10/02/13 17:37	CDC	TAL BUF
Total/NA	Analysis	MAVPH		1	142439	10/03/13 11:50	CMD	TAL BUF
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF
Total/NA	Analysis	MA VPH		1	143179	10/07/13 11:24	GSR	TAL BUF
Total/NA	Prep	3546			141819	09/30/13 08:34	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		10	142699	10/04/13 08:20	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		10	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-11 (2.5-3)

Date Collected: 09/25/13 09:20

Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-2

**Matrix: Solid** 

Percent Solids: 93.7

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			103651	10/01/13 10:09	KEC	TAL CAN
Total/NA	Analysis	8082		10	104246	10/04/13 14:36	HMB	TAL CAN
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		5	141897	09/30/13 13:50	JRK	TAL BUF
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUF
Total/NA	Analysis	6010		1	142236	10/01/13 19:58	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-7 (2.5-3)

Date Collected: 09/25/13 10:45

Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-3	}

Matrix: Solid Percent Solids: 90.9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	8082		1	104275	10/04/13 16:36	HMB	TAL CAN
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		10	141897	09/30/13 13:52	JRK	TAL BUF
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUF
Total/NA	Analysis	6010		1	142236	10/01/13 20:01	AMH	TAL BUF
Total/NA	Analysis	6010		5	142509	10/02/13 22:52	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 10:55

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-7 (4-5)

Lab Sample ID: 480-46783-4

Matrix: Solid

Percent Solids: 88.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142297	10/02/13 11:15	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142288	10/02/13 18:03	CDC	TAL BUF
Total/NA	Analysis	MAVPH		1	142133	10/02/13 03:25	CMD	TAL BUF
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF
Total/NA	Analysis	MA VPH		1	143179	10/07/13 11:24	GSR	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 14:21	DGB	TAL BUF
Total/NA	Prep	3546			141819	09/30/13 08:34	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-7 (7.5-8) Lab Sample ID: 480-46783-5

Date Collected: 09/25/13 11:10 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 65.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035	<del></del>		142057	10/01/13 11:37	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142036	10/01/13 18:30	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-8 (2-2.5) Lab Sample ID: 480-46783-6

Date Collected: 09/25/13 12:15 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 86.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142564	10/03/13 12:44	LCH	TAL BUF
Total/NA	Analysis	8260C		1	142492	10/03/13 20:13	LCH	TAL BUF
Total/NA	Prep	5035	DL		142564	10/03/13 12:44	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	8	142727	10/04/13 17:02	RAL	TAL BUF
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF
Total/NA	Analysis	MAVPH		50	142133	10/02/13 04:03	CMD	TAL BUF
Total/NA	Analysis	MA VPH		50	143179	10/07/13 11:24	GSR	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 14:51	DGB	TAL BUF
Total/NA	Prep	3546			141819	09/30/13 08:34	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-46783-7

Matrix: Solid

Percent Solids: 71.6

Client Sample ID: WCSB-8 (2.5-3)

Date Collected: 09/25/13 12:20 Date Received: 09/28/13 01:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	8082		1	104275	10/04/13 16:51	HMB	TAL CAN
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	141897	09/30/13 12:10	JRK	TAL BUF
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUF
Total/NA	Analysis	6010		1	142236	10/01/13 20:03	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-8 (7-8) Lab Sample ID: 480-46783-8

Date Collected: 09/25/13 12:30 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 68.9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142057	10/01/13 11:37	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142036	10/01/13 19:21	CDC	TAL BUF
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	142439	10/03/13 12:28	CMD	TAL BU
Total/NA	Analysis	MA VPH		1	143179	10/07/13 11:24	GSR	TAL BU
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAI
Total/NA	Analysis	8082		1	104106	10/03/13 21:23	HMB	TAL CAI
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUI
Total/NA	Prep	3546			141819	09/30/13 08:34	DLE	TAL BU
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 15:20	DGB	TAL BU
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BU
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BU

Client Sample ID: WCSB-6 (2.5-3) Lab Sample ID: 480-46783-9

Date Collected: 09/25/13 14:00 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 96.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082			104379	10/06/13 16:32	HMB	TAL CAN
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	141897	09/30/13 12:12	JRK	TAL BUF
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUF
Total/NA	Analysis	6010		1	142236	10/01/13 20:05	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/25/13 14:05

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-6 (4-5)

Lab Sample ID: 480-46783-10

Matrix: Solid

Percent Solids: 81.2

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035	<del></del>		142057	10/01/13 11:37	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142036	10/01/13 19:47	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-6 (8-9) Lab Sample ID: 480-46783-11

Date Collected: 09/25/13 14:15 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 78.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Γotal/NA	Prep	5035			142057	10/01/13 11:37	PJQ	TAL BUF
Γotal/NA	Analysis	8260C		1	142036	10/01/13 20:12	CDC	TAL BUF
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	142439	10/03/13 13:37	CMD	TAL BUF
Γotal/NA	Analysis	MA VPH		1	143179	10/07/13 11:24	GSR	TAL BUF
Γotal/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
otal/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Γotal/NA	Analysis	MA-EPH		1	142271	10/02/13 15:50	DGB	TAL BUF
Γotal/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
otal/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-5 (0.5-1.5) Lab Sample ID: 480-46783-12

Date Collected: 09/25/13 15:15 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 91.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142564	10/03/13 12:44	LCH	TAL BUF
Total/NA	Analysis	8260C		10	142492	10/03/13 20:38	LCH	TAL BUF
Total/NA	Prep	5035	DL		142564	10/03/13 12:44	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	50	142727	10/04/13 17:27	RAL	TAL BUF
Total/NA	Analysis	8082		10000	104106	10/03/13 21:52	HMB	TAL CA
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 16:20	DGB	TAL BUI
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUI
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUI

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-5 (5-6)

Date Collected: 09/25/13 15:25 Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-13

Matrix: Solid

Percent Solids: 73.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142564	10/03/13 12:44	LCH	TAL BUF
Total/NA	Analysis	8260C		10	142492	10/03/13 21:03	LCH	TAL BUF
Total/NA	Prep	5035	DL		142564	10/03/13 12:44	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	40	142727	10/04/13 17:53	RAL	TAL BUF
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF
Total/NA	Analysis	MAVPH		100	142133	10/02/13 05:59	CMD	TAL BUF
Total/NA	Analysis	MA VPH		100	143179	10/07/13 11:24	GSR	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 16:49	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-5 (2.5-3)

Date Collected: 09/25/13 15:30

Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-14

**Matrix: Solid** Percent Solids: 84.1

Batch Batch Dilution Batch Prepared or Analyzed Method Number Prep Type Туре Run Factor Analyst Lab Total/NA Prep 3540C 103632 10/01/13 09:24 KEC TAL CAN Total/NA 10/04/13 17:06 TAL CAN Analysis 8082 500 104275 HMB TAL BUF Total/NA Prep 7471A 141828 09/30/13 10:40 JRK Total/NA TAL BUF Analysis 7471A 1 141897 09/30/13 12:14 JRK Total/NA TAL BUF Prep 3050B 141839 09/30/13 14:10 NMD2 Total/NA Analysis 6010 142236 10/01/13 20:08 AMH TAL BUF Total/NA Analysis Moisture 1 141727 09/28/13 11:40 GTG TAL BUF

Client Sample ID: TB-09252013

Date Collected: 09/25/13 12:00

Date Received: 09/28/13 01:00

Lab Sample ID: 480-46783-15	Lab	Sample	ıD:	480-4	6783	-15
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**Matrix: Solid** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142297	10/02/13 11:15	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142288	10/02/13 18:28	CDC	TAL BUF

Client Sample ID: WCSB-4 (2.5-3)

Date Collected: 09/26/13 07:45

Lab Sample ID: 480-46783-16 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 78.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142564	10/03/13 12:52	LCH	TAL BUF
Total/NA	Analysis	8260C		1	142727	10/04/13 18:18	RAL	TAL BUF
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-4 (2.5-3) Lab Sample ID: 480-46783-16

Date Collected: 09/26/13 07:45 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 78.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	MAVPH		10	142270	10/02/13 17:34	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143179	10/07/13 11:24	GSR	TAL BUF
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	8082		1	104106	10/03/13 22:22	HMB	TAL CAN
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 17:48	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	141897	09/30/13 12:15	JRK	TAL BUF
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUF
Total/NA	Analysis	6010		1	142236	10/01/13 20:10	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-4 (6-7)

Lab Sample ID: 480-46783-17 Date Collected: 09/26/13 07:50 Matrix: Solid Date Received: 09/28/13 01:00 Percent Solids: 68.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142057	10/01/13 11:37	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142036	10/01/13 22:20	CDC	TAL BUF
Total/NA	Analysis	8082		1	104106	10/03/13 22:37	HMB	TAL CAN
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 18:18	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-2 (14-15)

Lab Sample ID: 480-46783-18 Date Collected: 09/26/13 09:25 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 76.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142564	10/03/13 12:52	LCH	TAL BUF
Total/NA	Analysis	8260C		1	142727	10/04/13 18:43	RAL	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-1 (1-2)

Lab Sample ID: 480-46783-19

Date Collected: 09/26/13 10:40 Date Received: 09/28/13 01:00

Matrix: Solid Percent Solids: 84.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142297	10/02/13 11:15	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142288	10/02/13 18:53	CDC	TAL BUF
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	8082		1	104106	10/03/13 23:21	HMB	TAL CAN
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 18:48	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Lab Sample ID: 480-46783-20

Date Collected: 09/26/13 10:45

Client Sample ID: WCSB-1 (2.5-3)

**Matrix: Solid** 

Date Received: 09/28/13 01:00 Percent Solids: 69.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142564	10/03/13 12:52	LCH	TAL BUF
Total/NA	Analysis	8260C		1	142727	10/04/13 19:09	RAL	TAL BUF
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	8082		100	104106	10/03/13 23:36	HMB	TAL CAN
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 19:17	DGB	TAL BUI
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUI
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	141897	09/30/13 12:18	JRK	TAL BUI
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUI
Total/NA	Analysis	6010		1	142236	10/01/13 20:12	AMH	TAL BUI
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BU

Client Sample ID: WCSB-1 (7-8)

Lab Sample ID: 480-46783-21

Date Collected: 09/26/13 10:55 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 74.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142297	10/02/13 11:15	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	142288	10/02/13 19:19	CDC	TAL BUF
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	8082		1	104106	10/03/13 23:51	HMB	TAL CAN
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 19:47	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/07/13 10:55	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/26/13 12:00

Date Received: 09/28/13 01:00

Client Sample ID: WCSB-3 (5-6)

Lab Sample ID: 480-46783-22

**Matrix: Solid** 

Percent Solids: 89.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143065	10/06/13 23:23	CDC	TAL BUF
Total/NA	Analysis	8260C		1	143062	10/07/13 02:48	PJQ	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-3 (7-8) Lab Sample ID: 480-46783-23

Date Collected: 09/26/13 11:55 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 72.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			142077	10/01/13 12:20	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	142270	10/02/13 18:50	CMD	TAL BUF
Total/NA	Analysis	MA VPH		1	143179	10/07/13 11:24	GSR	TAL BUF
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	8082		1	104106	10/04/13 00:06	HMB	TAL CAN
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 20:16	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-9 (1-2) Lab Sample ID: 480-46783-24

Date Collected: 09/26/13 13:20 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 83.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			141819	09/30/13 14:30	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142271	10/02/13 20:46	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			141975	10/01/13 06:47	DLE	TAL BUF
Total/NA	Analysis	MA-EPH		1	142792	10/04/13 10:18	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-9 (2.5-3) Lab Sample ID: 480-46783-25

Date Collected: 09/26/13 13:25 **Matrix: Solid** Date Received: 09/28/13 01:00 Percent Solids: 84.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1	104106	10/04/13 00:21	HMB	TAL CAN
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	141897	09/30/13 12:29	JRK	TAL BUF
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUF
Total/NA	Analysis	6010		1	142236	10/01/13 20:29	AMH	TAL BUF

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#### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Client Sample ID: WCSB-9 (2.5-3)

Lab Sample ID: 480-46783-25

Matrix: Solid

Date Collected: 09/26/13 13:25 Date Received: 09/28/13 01:00

Date Collected: 09/26/13 13:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

Client Sample ID: WCSB-909 (2.5-3)

Lab Sample ID: 480-46783-26

**Matrix: Solid** 

Date Received: 09/28/13 01:00 Percent Solids: 84.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082			104106	10/04/13 00:36	HMB	TAL CAN
Total/NA	Prep	3540C			103632	10/01/13 09:24	KEC	TAL CAN
Total/NA	Analysis	Moisture		1	104009	10/03/13 14:38	TPH	TAL CAN

Client Sample ID: WCSB-10 (2.5-3)

Lab Sample ID: 480-46783-27

**Matrix: Solid** 

Date Collected: 09/26/13 14:05 Date Received: 09/28/13 01:00 Percent Solids: 93.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			141828	09/30/13 10:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	141897	09/30/13 12:31	JRK	TAL BUF
Total/NA	Prep	3050B			141839	09/30/13 14:10	NMD2	TAL BUF
Total/NA	Analysis	6010		1	142236	10/01/13 20:32	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	141727	09/28/13 11:40	GTG	TAL BUF

#### **Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

# **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13 *
California	NELAP	9	1169CA	09-30-13 *
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

#### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *
USDA	Federal		P330-11-00328	08-26-14

<sup>\*</sup> Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

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# **Certification Summary**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

# Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-14

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# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
MA VPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MAVPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL CAN
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7471A	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
Moisture	Percent Moisture	EPA	TAL CAN

#### **Protocol References:**

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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# **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-46783-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-46783-1	WCSB-11 (1-2)	Solid	09/25/13 09:15	09/28/13 01:00
480-46783-2	WCSB-11 (2.5-3)	Solid	09/25/13 09:20	09/28/13 01:00
480-46783-3	WCSB-7 (2.5-3)	Solid	09/25/13 10:45	09/28/13 01:00
480-46783-4	WCSB-7 (4-5)	Solid	09/25/13 10:55	09/28/13 01:00
480-46783-5	WCSB-7 (7.5-8)	Solid	09/25/13 11:10	09/28/13 01:00
480-46783-6	WCSB-8 (2-2.5)	Solid	09/25/13 12:15	09/28/13 01:00
480-46783-7	WCSB-8 (2.5-3)	Solid	09/25/13 12:20	09/28/13 01:00
480-46783-8	WCSB-8 (7-8)	Solid	09/25/13 12:30	09/28/13 01:00
480-46783-9	WCSB-6 (2.5-3)	Solid	09/25/13 14:00	09/28/13 01:00
480-46783-10	WCSB-6 (4-5)	Solid	09/25/13 14:05	09/28/13 01:00
480-46783-11	WCSB-6 (8-9)	Solid	09/25/13 14:15	09/28/13 01:00
480-46783-12	WCSB-5 (0.5-1.5)	Solid	09/25/13 15:15	09/28/13 01:00
480-46783-13	WCSB-5 (5-6)	Solid	09/25/13 15:25	09/28/13 01:00
480-46783-14	WCSB-5 (2.5-3)	Solid	09/25/13 15:30	09/28/13 01:00
480-46783-15	TB-09252013	Solid	09/25/13 12:00	09/28/13 01:00
480-46783-16	WCSB-4 (2.5-3)	Solid	09/26/13 07:45	09/28/13 01:00
480-46783-17	WCSB-4 (6-7)	Solid	09/26/13 07:50	09/28/13 01:00
480-46783-18	WCSB-2 (14-15)	Solid	09/26/13 09:25	09/28/13 01:00
480-46783-19	WCSB-1 (1-2)	Solid	09/26/13 10:40	09/28/13 01:00
480-46783-20	WCSB-1 (2.5-3)	Solid	09/26/13 10:45	09/28/13 01:00
480-46783-21	WCSB-1 (7-8)	Solid	09/26/13 10:55	09/28/13 01:00
480-46783-22	WCSB-3 (5-6)	Solid	09/26/13 12:00	09/28/13 01:00
480-46783-23	WCSB-3 (7-8)	Solid	09/26/13 11:55	09/28/13 01:00
480-46783-24	WCSB-9 (1-2)	Solid	09/26/13 13:20	09/28/13 01:00
480-46783-25	WCSB-9 (2.5-3)	Solid	09/26/13 13:25	09/28/13 01:00
480-46783-26	WCSB-909 (2.5-3)	Solid	09/26/13 13:25	09/28/13 01:00
480-46783-27	WCSB-10 (2.5-3)	Solid	09/26/13 14:05	09/28/13 01:00

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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes □ No ☑





THE LEADER IN 480-

480-46783 Chain of Custody

	TAL-4124 (1007)													<u> </u>								
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	Mosarola Curran				ea l									2/26/13 238339								
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	Project Name and Location (State)		Carrier/Wa	ybill N	lumber		/	, , -			, Š		2	Ω								
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					<i>latrix</i>			reserva	tives	н	\ \A											•
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2	LXSB-7(75-8)	110	0	Ш	X					X		X										
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54	WCSB-8 (2.5-3)	12	20		×	Х					XX											
	LXSB-8 (7-8)	17	30		X	X				X	X	X	X,	X			$\perp \perp$					
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# Chain of **Custody Record**

Temperature on Receipt \_

**TestAmerica** 

Drinking Water? Yes □ No □

THE LEADER IN ENVIRONMENTAL TESTING

	TAL-4124 (1007)	_					· ·																	_		
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DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy















# Chain of Custody Record

Temperature on Receipt .

**TestAmerica** TESTING

Drinking Water? Yes □ No 🏋	THE LEADER IN ENVIRONMENTAL
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	Client Across & Constant		Project	Manage Avvol	er Tea	He	ese.	/									Date G	1261	13			Cha	nin of Custody N	umber 41	
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	City State Zip	00de 32903												Analysis (Attach list if more space is needed)											_
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Page 123 of 124															$\perp$							1	woted o	werwis	<u> </u>
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DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy













# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-46783-1

Login Number: 46783 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Answer	Comment
True	
True	
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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-50846-1 Client Project/Site: Quincy Inervale

For:

Woodard & Curran Inc 40 Shattuck Road Suite 110 Andover, Massachusetts 01810

Attn: Mr. Jarrod Yoder

Masen

Authorized for release by: 12/12/2013 11:24:53 AM

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

·····LINKS ······

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **GC Semi VOA**

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Metals**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
F	MS/MSD Recovery and/or RPD exceeds the control limits

# **Glossary**

TEQ

**************************************	Listed under the "D" column to designate that the result is reported on a dry weight basis
/.D	
/01X	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Oil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit

WID7 (	William actobable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
	Minimum Laurel (Diarria)

ML	Minimum Levei (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)

PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)	
--	--

Toxicity Equivalent Quotient (Dioxin)

RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

#### **Case Narrative**

Client: Woodard & Curran Inc TestAmerica Job ID: 480-50846-1
Project/Site: Quincy Inervale

Job ID: 480-50846-1

Laboratory: TestAmerica Buffalo

Narrative

#### Receipt

The samples were received on 11/26/2013 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.3° C and 3.6° C.

The following samples were preserved via freezing by the client on 11/22/2013 at 20:00: TB-11222013 (1) (480-50846-20), WCSS-55 (0-0.25) (480-50846-14), WCSS-56 (0-0.25) (480-50846-13), WCSS-57 (0-0.25) (480-50846-15). This is within the 48 hour timeframe required by the method.

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) for Chloroethane and Dichlorodifluoromethane associated with batch 154424 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method 8260C: The laboratory control sample (LCS) for batch 154424 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample.

With the exception of diluted samples and adjustments made for % solids or insufficient sample mass, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-Dibromo-3-Chloropropane, Naphthalene, & Tetrahydrofuran.

No other analytical or quality issues were noted.

#### GC Semi VOA

Method 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WCSS-47 (0-0.25) (480-50846-2), WCSS-49 (0-0.25) (480-50846-9), WCSS-52 (0-0.25) (480-50846-7), WCSS-53 (0-0.25) (480-50846-6), WCSS-54 (0-0.25) (480-50846-5), WCSS-57 (0-0.25) (480-50846-15), WCSS-58 (0-0.25) (480-50846-11), WCSS-59 (0-0.25) (480-50846-4), WCSS-60 (0-0.25) (480-50846-3), WCSS-61 (0-0.25) (480-50846-1), WCSS-62 (0-0.25) (480-50846-16), WCSS-63 (0-0.25) (480-50846-17), WCSS-958 (0-0.25) (480-50846-12), EXS221025 (480-50852-5), EXS221025 MS (480-50852-5 MS), EXS221025 MSD (480-50852-5 MSD), WCSS-51 (0-0.25) (480-50846-8). Lot # S65830

Method 8082: The following samples appear to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: WCSS-47 (0-0.25) (480-50846-2), WCSS-49 (0-0.25) (480-50846-9), WCSS-53 (0-0.25) (480-50846-6), WCSS-58 (0-0.25) (480-50846-11), WCSS-59 (0-0.25) (480-50846-4), WCSS-60 (0-0.25) (480-50846-3), WCSS-958 (0-0.25) (480-50846-12). The samples have been quantified and reported as a mixture. The best possible match was reported. Due to the poor match with the Aroclor standards, there is increased qualitative and quantitative uncertainty associated with this result.

Method 8082: One surrogate failed low on the confirmation column. Both surrogates on the primary column passed. No corrective action is required.

No other analytical or quality issues were noted.

#### Metals

Method 6010: The Method Blank for batch 480-154522 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples WCSS-49 (0-0.25) (480-50846-9), WCSS-50 (0-0.25) (480-50846-10), WCSS-51 (0-0.25) (480-50846-8), WCSS-52 (0-0.25) (480-50846-7), WCSS-53 (0-0.25) (480-50846-6), WCSS-54 (0-0.25) (480-50846-5), WCSS-57 (0-0.25) (480-50846-15), WCSS-58 (0-0.25) (480-50846-11), WCSS-59 (0-0.25) (480-50846-4), WCSS-60 (0-0.25) (480-50846-3), WCSS-61 (0-0.25) (480-50846-1), WCSS-62 (0-0.25) (480-50846-16), WCSS-63 (0-0.25) (480-50846-17), WCSS-72 (0-0.25) (480-50846-18) was not performed.

Method 6010: The ICSA ( (ICSA 480-155331/10)) exhibited results outside the project established contol limits for total antimony. However, the results were within TestAmerica's standard quality control limits, therefore no corrective action was necessary.

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#### **Case Narrative**

TestAmerica Job ID: 480-50846-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Job ID: 480-50846-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

Method 6010: The Matrix Spike (WCSS-58 (0-0.25) MS (480-50846-11 MS)) recoveries for total lead and zinc in batch 480-154522 were outside control limits. Matrix interference is suspected. The associated Laboratory Control Sample (LCS) recovery met acceptance criteria, therefore no corrective action was necessary.

Method 7471A: The following samples were diluted to bring the concentration of the target analyte total mercury within the calibration range: WCSS-49 (0-0.25) (480-50846-9), WCSS-51 (0-0.25) (480-50846-8), WCSS-62 (0-0.25) (480-50846-16). Elevated reporting limits (RLs) are provided.

Method 7471A: The Matrix Spike/ Matrix Spike Duplicate (MS/MSD) recoveries for total mercury in batchs 154828 and 154829 were outside control limits. The associated Laboratory Control Sample (LCS) recovery met acceptance criteria, therefore no corrective action was necessary.

No other analytical or quality issues were noted.

#### **General Chemistry**

No analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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		I	MassDEP An	alytica	l Protocol Certi	fication Form			
Laboi	ratory Nam	e: <b>Test</b>	America Buffalo	)	Project #	:	480-50846	-1	
Proje	ect Location	n:	Quincy		RTN	:			
This f	form provi	des certification	ns for the data	set for th	ne following Labor	atory Sample ID N	umber(s):		
480-5	0846-1[1-2	-							
Matric	ces: L					Drinking Water	∐Air	∐Other:	
	_	· ·	, — I	VPH					
				P FPH					
		CAM III C			CAM V C	CAM VIII A			
II		6020 Metals CAM III D	8082 PCB	;   <u>X</u>	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A	6860 Perchlorate			
	Affirmativ	e Responses to	Questions A t	hrough	F are required for	"Presumptive Cert	ainty" sta	tus	
Α	properly p	reserved (includi					d within	X <sub>Yes</sub>	□ No
В		•	d(s) and all asso	ciated Q	C requirements spe	cified in the selecte	d CAM	X <sub>Yes</sub>	□ No
С							ed CAM	X <sub>Yes</sub>	☐ No
D							alvtical	X Yes	☐ No
Е	modification	on(s)? (Refer to t	the individual me	thod(s) f	or a list of significar	nt modifications).		_	☐ No
F	This form provides certifications for the data set for the following Laboratory Sample ID Number(s):  180-50846-1[1-20]  Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:  CAM Protocols (check all that apply below):  3260 VOC 7470/7471 Hg Mass DEP VPH 8081 Pesticides 7196 Hex Cr AM VI B AM		□ No						
			,			<u> </u>			
G	protocol(s	)?			·				<u> </u>
	<u>Data Use</u>			•	-	_		usability a	and
Н	Were <b>all</b> (							Yes	X No <sup>1</sup>
I	Were resu	Its reported for t	he complete ana	ılyte list s	specified in the sele	cted CAM protocol(s	s) ?	X Yes	☐ No¹
1 All neg					•	,			
obtair	ning the info	ormation, the ma	-	_		= =		_	nsible for
Signa	ture:	Ren V	Masen	ov	Position	:Pr	oject Mana	ager	
II					_ Date	:1	2/12/13 11	:22	

Client: Woodard & Curran Inc

TestAmerica Job ID: 480-50846-1

Project/Site: Quincy Inervale

Client Sample ID: WCSS-61 (0-0.25)

Lab Sam	ple ID:	480-50846-1
Lub Ouiii	PIC ID.	TOU COUTO I

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.0378		0.0344	0.0177	mg/Kg	1	₩	8082	Total/NA
Arsenic	2.92		0.955	0.382	mg/Kg	1	₩	6010	Total/NA
Barium	19.9		0.478	0.105	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.390		0.191	0.0267	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.150	J	0.191	0.0287	mg/Kg	1	₽	6010	Total/NA
Chromium	6.53		0.478	0.191	mg/Kg	1	₽	6010	Total/NA
Nickel	6.97		0.955	0.220	mg/Kg	1	₽	6010	Total/NA
Vanadium	17.3		0.478	0.105	mg/Kg	1	₽	6010	Total/NA
Zinc	47.3	В	2.39	0.146	mg/Kg	1	₽	6010	Total/NA
Lead	24.3		0.478	0.229	mg/Kg	1	₽	6010	Total/NA
Selenium	0.388	J	0.478	0.382	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0346	J	0.105	0.00852	mg/Kg	1	₩	7471A	Total/NA

Client Sample ID: WCSS-47 (0-0.25)

# Lab Sample ID: 480-50846-2

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
PCB-1260	0.404	0.181	0.0933 mg/Kg	5 🕏 8082	Total/NA

Client Sample ID: WCSS-60 (0-0.25)

# Lab Sample ID: 480-50846-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.430		0.174	0.0897	mg/Kg		₩	8082	Total/NA
Arsenic	5.87		1.03	0.411	mg/Kg	1	₩	6010	Total/NA
Barium	47.0		0.514	0.113	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.363		0.205	0.0288	mg/Kg	1	₽	6010	Total/NA
Cadmium	1.82		0.205	0.0308	mg/Kg	1	₩	6010	Total/NA
Chromium	26.2		0.514	0.205	mg/Kg	1	₩	6010	Total/NA
Nickel	33.7		1.03	0.236	mg/Kg	1	₽	6010	Total/NA
Vanadium	19.9		0.514	0.113	mg/Kg	1	₩	6010	Total/NA
Zinc	338	В	2.57	0.157	mg/Kg	1	₩	6010	Total/NA
Lead	200		0.514	0.246	mg/Kg	1	₩	6010	Total/NA
Selenium	0.561		0.514	0.411	mg/Kg	1	₩	6010	Total/NA
Antimony	0.683	^	0.514	0.411	mg/Kg	1	₩	6010	Total/NA
Mercury	0.104		0.100	0.00813	mg/Kg	1	₩	7471A	Total/NA

Client Sample ID: WCSS-59 (0-0.25)

#### Lab Sample ID: 480-50846-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.125		0.0356	0.0183	mg/Kg	1	₩	8082	Total/NA
Arsenic	3.62		1.14	0.454	mg/Kg	1	₽	6010	Total/NA
Barium	29.2		0.568	0.125	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.293		0.227	0.0318	mg/Kg	1	\$	6010	Total/NA
Cadmium	0.677		0.227	0.0341	mg/Kg	1	₽	6010	Total/NA
Chromium	21.5		0.568	0.227	mg/Kg	1	₩	6010	Total/NA
Nickel	29.4		1.14	0.261	mg/Kg	1	₽	6010	Total/NA
Vanadium	23.1		0.568	0.125	mg/Kg	1	₩	6010	Total/NA
Zinc	116	В	2.84	0.174	mg/Kg	1	₽	6010	Total/NA
Lead	100		0.568	0.272	mg/Kg	1	₩	6010	Total/NA
Selenium	1.19		0.568	0.454	mg/Kg	1	₩	6010	Total/NA
Mercury	0.0760	J	0.111	0.00896	mg/Kg	1	₽	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

12/12/2013

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-54 (0-0.25)

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.376		0.172	0.0888	mg/Kg	5	₩	8082	Total/NA
Arsenic	3.19		0.977	0.391	mg/Kg	1	₩	6010	Total/NA
Barium	32.6		0.489	0.107	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.358		0.195	0.0274	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.690		0.195	0.0293	mg/Kg	1	₽	6010	Total/NA
Chromium	34.2		0.489	0.195	mg/Kg	1	₽	6010	Total/NA
Nickel	28.4		0.977	0.225	mg/Kg	1	₽	6010	Total/NA
Vanadium	23.9		0.489	0.107	mg/Kg	1	₽	6010	Total/NA
Zinc	131	В	2.44	0.150	mg/Kg	1	₩	6010	Total/NA
Lead	106		0.489	0.235	mg/Kg	1	₩	6010	Total/NA
Selenium	0.783		0.489	0.391	mg/Kg	1	₽	6010	Total/NA
Mercury	0.111		0.0936	0.00758	mg/Kg	1	₩	7471A	Total/NA

# Client Sample ID: WCSS-53 (0-0.25)

# Lab Sample ID: 480-50846-6

Analyte	Result (	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.381		0.172	0.0888	mg/Kg	5	₽	8082	Total/NA
Arsenic	4.89		1.10	0.440	mg/Kg	1	₽	6010	Total/NA
Barium	39.5		0.550	0.121	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.287		0.220	0.0308	mg/Kg	1	₽	6010	Total/NA
Cadmium	1.32		0.220	0.0330	mg/Kg	1	₽	6010	Total/NA
Chromium	55.3		0.550	0.220	mg/Kg	1	₽	6010	Total/NA
Nickel	47.4		1.10	0.253	mg/Kg	1	₩	6010	Total/NA
Vanadium	24.1		0.550	0.121	mg/Kg	1	₽	6010	Total/NA
Zinc	239 E	В	2.75	0.168	mg/Kg	1	₽	6010	Total/NA
Lead	161		0.550	0.264	mg/Kg	1	\$	6010	Total/NA
Selenium	0.914		0.550	0.440	mg/Kg	1	₽	6010	Total/NA
Antimony	0.573	^	0.550	0.440	mg/Kg	1	₽	6010	Total/NA
Mercury	0.172		0.0985	0.00798	mg/Kg	1	₽	7471A	Total/NA

# Client Sample ID: WCSS-52 (0-0.25)

# Lab Sample ID: 480-50846-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	1.88		0.376	0.194	mg/Kg	10	₩	8082	Total/NA
Arsenic	3.52		1.24	0.497	mg/Kg	1	₽	6010	Total/NA
Barium	249		0.621	0.137	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.271		0.248	0.0348	mg/Kg	1	₽	6010	Total/NA
Cadmium	3.51		0.248	0.0373	mg/Kg	1	₽	6010	Total/NA
Chromium	29.1		0.621	0.248	mg/Kg	1	₽	6010	Total/NA
Nickel	32.0		1.24	0.286	mg/Kg	1	₽	6010	Total/NA
Vanadium	17.9		0.621	0.137	mg/Kg	1	₩	6010	Total/NA
Zinc	722	В	3.10	0.190	mg/Kg	1	₽	6010	Total/NA
Lead	338		0.621	0.298	mg/Kg	1	₽	6010	Total/NA
Antimony	1.76	٨	0.621	0.497	mg/Kg	1	₽	6010	Total/NA
Mercury	0.830		0.111	0.00898	mg/Kg	1	₽	7471A	Total/NA

#### Client Sample ID: WCSS-51 (0-0.25)

# Lab Sample ID: 480-50846-8

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac [	Method	Prep Type
PCB-1260	3.15	0.739	0.381 mg/Kg		8082	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-51 (0-0.25) (Continued) Lab Sample ID: 480-50846-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.47		1.16	0.463	mg/Kg	1	₩	6010	Total/NA
Barium	78.1		0.579	0.127	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.758		0.231	0.0324	mg/Kg	1	₽	6010	Total/NA
Cadmium	5.51		0.231	0.0347	mg/Kg	1	₽	6010	Total/NA
Chromium	29.9		0.579	0.231	mg/Kg	1	₽	6010	Total/NA
Nickel	32.5		1.16	0.266	mg/Kg	1	₩	6010	Total/NA
Vanadium	16.2		0.579	0.127	mg/Kg	1	₽	6010	Total/NA
Zinc	613	В	2.89	0.177	mg/Kg	1	₽	6010	Total/NA
Lead	617		0.579	0.278	mg/Kg	1	₽	6010	Total/NA
Selenium	0.520	J	0.579	0.463	mg/Kg	1	₽	6010	Total/NA
Antimony	2.60	^	0.579	0.463	mg/Kg	1	₽	6010	Total/NA
Mercury	1.76		1.07	0.0865	mg/Kg	10	₽	7471A	Total/NA

Client Sample ID: WCSS-49 (0-0.25)

Lab Sample ID: 480-50846-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	1.55		0.383	0.198	mg/Kg	10	₩	8082	Total/NA
Silver	2.63		0.552	0.221	mg/Kg	1	₽	6010	Total/NA
Arsenic	9.11		1.10	0.441	mg/Kg	1	₩	6010	Total/NA
Barium	392		0.552	0.121	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.430		0.221	0.0309	mg/Kg	1	₽	6010	Total/NA
Cadmium	6.10		0.221	0.0331	mg/Kg	1	₽	6010	Total/NA
Chromium	44.1		0.552	0.221	mg/Kg	1	₽	6010	Total/NA
Nickel	50.8		1.10	0.254	mg/Kg	1	₽	6010	Total/NA
Vanadium	23.1		0.552	0.121	mg/Kg	1	₽	6010	Total/NA
Zinc	1500	В	2.76	0.169	mg/Kg	1	₽	6010	Total/NA
Lead	1340		0.552	0.265	mg/Kg	1	₽	6010	Total/NA
Selenium	1.08		0.552	0.441	mg/Kg	1	₽	6010	Total/NA
Antimony	16.4	^	0.552	0.441	mg/Kg	1	₽	6010	Total/NA
Mercury	8.79		2.29	0.185	mg/Kg	20	₽	7471A	Total/NA

Client Sample ID: WCSS-50 (0-0.25)

Lab Sample ID: 480-50846-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.32		1.13	0.451	mg/Kg	1	₩	6010	Total/NA
Barium	31.8		0.564	0.124	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.288		0.226	0.0316	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.524		0.226	0.0338	mg/Kg	1	₽	6010	Total/NA
Chromium	10.4		0.564	0.226	mg/Kg	1	₩	6010	Total/NA
Nickel	9.59		1.13	0.259	mg/Kg	1	₽	6010	Total/NA
Vanadium	23.8		0.564	0.124	mg/Kg	1	₽	6010	Total/NA
Zinc	103	В	2.82	0.173	mg/Kg	1	₽	6010	Total/NA
Lead	69.7		0.564	0.271	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0705	J	0.113	0.00912	mg/Kg	1	₽	7471A	Total/NA

Client Sample ID: WCSS-58 (0-0.25)

Lab Sample ID: 480-50846-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep	р Туре
PCB-1260	0.305		0.180	0.0929	mg/Kg	5	₩	8082	Tota	al/NA
Arsenic	3.42		0.986	0.394	mg/Kg	1	₽	6010	Tota	al/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-58 (0-0.25) (Continued)

Lab Sample ID: 480-50846-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	49.1		0.493	0.108	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.277		0.197	0.0276	mg/Kg	1	\$	6010	Total/NA
Cadmium	0.654		0.197	0.0296	mg/Kg	1	₽	6010	Total/NA
Chromium	25.4		0.493	0.197	mg/Kg	1	₽	6010	Total/NA
Nickel	23.7		0.986	0.227	mg/Kg	1	₽	6010	Total/NA
Vanadium	22.9		0.493	0.108	mg/Kg	1	₩	6010	Total/NA
Zinc	137	В	2.46	0.151	mg/Kg	1	₽	6010	Total/NA
Lead	121		0.493	0.237	mg/Kg	1	₩.	6010	Total/NA
Mercury	0.0807	J	0.0981	0.00794	mg/Kg	1	₽	7471A	Total/NA

## **Client Sample ID: WCSS-958 (0-0.25)**

Lab Sample ID: 480-50846-12

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
PCB-1260	0.254	0.182	0.0936 mg/Kg	5 🌣 8082	Total/NA

## Client Sample ID: WCSS-56 (0-0.25)

Lab Sample ID: 480-50846-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.00307	J	0.00390	0.000538	mg/Kg	1	₩	8260C	Total/NA
m-Xylene & p-Xylene	0.0130		0.00779	0.00131	mg/Kg	1	₽	8260C	Total/NA
o-Xylene	0.00510		0.00390	0.00102	mg/Kg	1	₽	8260C	Total/NA
Tetrachloroethene	0.0510		0.00390	0.00105	mg/Kg	1	₩	8260C	Total/NA

### Client Sample ID: WCSS-55 (0-0.25)

Lab Sample ID: 480-50846-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.000905	J	0.00207	0.000285	mg/Kg		₩	8260C	Total/NA
m-Xylene & p-Xylene	0.00368	J	0.00413	0.000694	mg/Kg	1	₩	8260C	Total/NA
o-Xylene	0.00148	J	0.00207	0.000540	mg/Kg	1	₩	8260C	Total/NA

# Client Sample ID: WCSS-57 (0-0.25)

### Lab Sample ID: 480-50846-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.00227	J	0.00268	0.000369	mg/Kg	1	₩	8260C	Total/NA
m-Xylene & p-Xylene	0.00855		0.00535	0.000900	mg/Kg	1	₽	8260C	Total/NA
o-Xylene	0.00339		0.00268	0.000699	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.0381		0.00268	0.000405	mg/Kg	1	₽	8260C	Total/NA
PCB-1260	0.105		0.0376	0.0194	mg/Kg	1	₽	8082	Total/NA
Benzo[a]anthracene	0.839		0.528	0.0803	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]pyrene	1.38		0.528	0.0760	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[b]fluoranthene	2.17		0.528	0.0750	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[k]fluoranthene	0.798		0.528	0.0771	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	1.38		0.528	0.0940	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	1.92		0.528	0.0929	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene	0.677		0.528	0.106	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	1.76		0.528	0.0961	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	53.5		5.28	2.11	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	59.0		5.28	2.11	mg/Kg	1	₽	MA-EPH	Total/NA
Arsenic	2.38		1.07	0.430	mg/Kg	1	₩	6010	Total/NA
Barium	22.9		0.537	0.118	mg/Kg	1	₩	6010	Total/NA

This Detection Summary does not include radiochemical test results.

Lab Sample ID: 480-50846-16

Lab Sample ID: 480-50846-17

Lab Sample ID: 480-50846-18

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-50846-15

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## Client Sample ID: WCSS-57 (0-0.25) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.186	J	0.215	0.0301	mg/Kg	1	₩	6010	Total/NA
Cadmium	0.343		0.215	0.0322	mg/Kg	1	₽	6010	Total/NA
Chromium	10.3		0.537	0.215	mg/Kg	1	₽	6010	Total/NA
Nickel	12.0		1.07	0.247	mg/Kg	1	₽	6010	Total/NA
Vanadium	27.9		0.537	0.118	mg/Kg	1	₽	6010	Total/NA
Zinc	79.6	В	2.68	0.164	mg/Kg	1	₽	6010	Total/NA
Lead	48.0		0.537	0.258	mg/Kg	1	₽	6010	Total/NA
Mercury	0.109	J	0.111	0.00901	mg/Kg	1	₩	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	42.6		5.70	5.70	mg/Kg		₩	MA-EPH	Total/NA

# Client Sample ID: WCSS-62 (0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	3.24		0.362	0.186	mg/Kg	10	₩	8082	Total/NA
Arsenic	10.2		1.21	0.484	mg/Kg	1	₽	6010	Total/NA
Barium	179		0.605	0.133	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.477		0.242	0.0339	mg/Kg	1	₽	6010	Total/NA
Cadmium	7.89		0.242	0.0363	mg/Kg	1	₽	6010	Total/NA
Chromium	17.9		0.605	0.242	mg/Kg	1	₽	6010	Total/NA
Nickel	25.7		1.21	0.278	mg/Kg	1	₽	6010	Total/NA
Vanadium	17.7		0.605	0.133	mg/Kg	1	₽	6010	Total/NA
Zinc	895	В	3.02	0.185	mg/Kg	1	₽	6010	Total/NA
Lead	662		0.605	0.290	mg/Kg	1	\$	6010	Total/NA
Selenium	0.904		0.605	0.484	mg/Kg	1	₽	6010	Total/NA
Antimony	5.10	^	0.605	0.484	mg/Kg	1	₽	6010	Total/NA
Mercury	1.43		0.559	0.0453	mg/Kg	5	₽	7471A	Total/NA

### Client Sample ID: WCSS-63 (0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	7.67		1.31	0.674	mg/Kg	20	₩	8082	Total/NA
Silver	1.54		1.07	0.429	mg/Kg	1	₽	6010	Total/NA
Arsenic	32.0		2.15	0.858	mg/Kg	1	₩	6010	Total/NA
Barium	317		1.07	0.236	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.433		0.429	0.0601	mg/Kg	1	₽	6010	Total/NA
Cadmium	12.4		0.429	0.0644	mg/Kg	1	₩	6010	Total/NA
Chromium	61.8		1.07	0.429	mg/Kg	1	Þ	6010	Total/NA
Nickel	57.4		2.15	0.493	mg/Kg	1	₩	6010	Total/NA
Vanadium	31.3		1.07	0.236	mg/Kg	1	₩	6010	Total/NA
Zinc	4150	В	5.36	0.328	mg/Kg	1	₽	6010	Total/NA
Lead	2780		1.07	0.515	mg/Kg	1	₩	6010	Total/NA
Selenium	2.28		1.07	0.858	mg/Kg	1	₩	6010	Total/NA
Antimony	54.7	^	1.07	0.858	mg/Kg	1	₽	6010	Total/NA
Mercury	0.799		0.199	0.0161	mg/Kg	1	₽	7471A	Total/NA

## Client Sample ID: WCSS-72(0-0.25)

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
Arsenic	3.15	1.15	0.461 mg/Kg	1 🛱 6010	Total/NA

This Detection Summary does not include radiochemical test results.

# **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-18

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Client Sample ID: WCSS-72(0-0.25) (Continued)

Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
 29.0		0.576	0.127	mg/Kg	1	\$	6010	Total/NA
0.195	J	0.230	0.0322	mg/Kg	1	₽	6010	Total/NA
0.315		0.230	0.0345	mg/Kg	1	₽	6010	Total/NA
7.09		0.576	0.230	mg/Kg	1	₽	6010	Total/NA
6.10		1.15	0.265	mg/Kg	1	₽	6010	Total/NA
9.24		0.576	0.127	mg/Kg	1	₽	6010	Total/NA
50.8	В	2.88	0.176	mg/Kg	1	₩	6010	Total/NA
13.3		0.576	0.276	mg/Kg	1	₽	6010	Total/NA

0.00896 mg/Kg

Client Sample ID: WCEB-57 (0-0.25)

0.0164 J

Lab Sample ID: 480-50846-19

Total/NA

1 🌣 7471A

No Detections.

Mercury

Analyte
Barium
Beryllium
Cadmium
Chromium
Nickel
Vanadium
Zinc
Lead

Client Sample ID: TB-11222013 (1)

Lab Sample ID: 480-50846-20

0.111

No Detections.

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Lab Sample ID: 480-50846-1

Matrix: Solid

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-61 (0-0.25)

Date Collected: 11/22/13 07:50

Date Received: 11/26/13 02:00

Date Received: 11/26/13 02:00 Percent Solids: 96.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0344		0.0344	0.0219	mg/Kg	\$	11/29/13 07:58	12/03/13 22:21	1
PCB-1221	<0.0344		0.0344	0.0167	mg/Kg	₽	11/29/13 07:58	12/03/13 22:21	1
PCB-1232	<0.0344		0.0344	0.0146	mg/Kg	₩	11/29/13 07:58	12/03/13 22:21	1
PCB-1242	<0.0344		0.0344	0.0135	mg/Kg	₽	11/29/13 07:58	12/03/13 22:21	1
PCB-1248	<0.0344		0.0344	0.0177	mg/Kg	₽	11/29/13 07:58	12/03/13 22:21	1
PCB-1254	<0.0344		0.0344	0.0177	mg/Kg	₩	11/29/13 07:58	12/03/13 22:21	1
PCB-1260	0.0378		0.0344	0.0177	mg/Kg	₽	11/29/13 07:58	12/03/13 22:21	1
PCB-1262	<0.0344		0.0344	0.0281	mg/Kg	₩	11/29/13 07:58	12/03/13 22:21	1
PCB-1268	<0.0344		0.0344	0.0146	mg/Kg	₽	11/29/13 07:58	12/03/13 22:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		30 - 150				11/29/13 07:58	12/03/13 22:21	1
Tetrachloro-m-xylene	73		30 - 150				11/29/13 07:58	12/03/13 22:21	1
DCB Decachlorobiphenyl	76		30 - 150				11/29/13 07:58	12/03/13 22:21	1
DCB Decachlorobiphenyl	65		30 - 150				11/29/13 07:58	12/03/13 22:21	1

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.478		0.478	0.191	mg/Kg	<del>-</del>	11/26/13 10:00	12/01/13 00:41	1
Arsenic	2.92		0.955	0.382	mg/Kg	₽	11/26/13 10:00	12/02/13 16:49	1
Barium	19.9		0.478	0.105	mg/Kg	₽	11/26/13 10:00	12/01/13 00:41	1
Beryllium	0.390		0.191	0.0267	mg/Kg	\$	11/26/13 10:00	12/01/13 00:41	1
Cadmium	0.150	J	0.191	0.0287	mg/Kg	₽	11/26/13 10:00	12/01/13 00:41	1
Chromium	6.53		0.478	0.191	mg/Kg	₽	11/26/13 10:00	12/01/13 00:41	1
Nickel	6.97		0.955	0.220	mg/Kg	₽	11/26/13 10:00	12/01/13 00:41	1
Thallium	< 0.955		0.955	0.287	mg/Kg	₽	11/26/13 10:00	12/02/13 16:49	1
Vanadium	17.3		0.478	0.105	mg/Kg	₽	11/26/13 10:00	12/01/13 00:41	1
Zinc	47.3	В	2.39	0.146	mg/Kg	₩	11/26/13 10:00	12/01/13 00:41	1
Lead	24.3		0.478	0.229	mg/Kg	₽	11/26/13 10:00	12/01/13 00:41	1
Selenium	0.388	J	0.478	0.382	mg/Kg	₩	11/26/13 10:00	12/02/13 16:49	1
Antimony	<0.478	<b>v</b>	0.478	0.382	mg/Kg		11/26/13 10:00	12/02/13 16:49	1

Method: 7471A - Mercury (CVAA)						_	_		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0346	J	0.105	0.00852	mg/Kg	*	11/29/13 08:40	11/29/13 15:21	1

Client Sample ID: WCSS-47 (0-0.25) Lab Sample ID: 480-50846-2 Date Collected: 11/22/13 08:00 Matrix: Solid

thod: 8082 - Polychlorinated Biphenyls (GC/ECD)										
Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
<0.181	0.181	0.115	mg/Kg	<del>\</del>	11/29/13 07:58	12/03/13 22:36	5			
<0.181	0.181	0.0878	mg/Kg	₩	11/29/13 07:58	12/03/13 22:36	5			
<0.181	0.181	0.0769	mg/Kg	₩	11/29/13 07:58	12/03/13 22:36	5			
<0.181	0.181	0.0714	mg/Kg	₩	11/29/13 07:58	12/03/13 22:36	5			
<0.181	0.181	0.0933	mg/Kg	₩	11/29/13 07:58	12/03/13 22:36	5			
<0.181	0.181	0.0933	mg/Kg	₩	11/29/13 07:58	12/03/13 22:36	5			
0.404	0.181	0.0933	mg/Kg	₩	11/29/13 07:58	12/03/13 22:36	5			
<0.181	0.181	0.148	mg/Kg	₩	11/29/13 07:58	12/03/13 22:36	5			
	Result Q <0.181 <0.181 <0.181 <0.181 <0.181 <0.181 <0.181  0.404	Result         Qualifier         RL           <0.181	Result         Qualifier         RL         MDL           <0.181	Result Qualifier         RL 0.181         MDL 0.115 mg/Kg         Unit mg/Kg           <0.181	Result         Qualifier         RL         MDL         Unit         D           <0.181	Result         Qualifier         RL         MDL mg/Kg         Unit         D         Prepared           <0.181	Result Qualifier         RL Qualifier         MDL Qualifier         Unit Duit         Description         Prepared Prepared         Analyzed           <0.181			

TestAmerica Buffalo

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Percent Solids: 90.4

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

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Client Sample ID: WCSS-47 (0-0.25)

Date Collected: 11/22/13 08:00 Date Received: 11/26/13 02:00 Lab Sample ID: 480-50846-2 Matrix: Solid

Percent Solids: 90.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1268	<0.181		0.181	0.0769	mg/Kg	<del>\</del>	11/29/13 07:58	12/03/13 22:36	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	117		30 - 150				11/29/13 07:58	12/03/13 22:36	5
Tetrachloro-m-xylene	94		30 - 150				11/29/13 07:58	12/03/13 22:36	5
DCB Decachlorobiphenyl	297	Χ	30 - 150				11/29/13 07:58	12/03/13 22:36	5
DCB Decachlorobiphenyl	78		30 - 150				11/29/13 07:58	12/03/13 22:36	5

Client Sample ID: WCSS-60 (0-0.25)

Date Collected: 11/22/13 08:10 Date Received: 11/26/13 02:00 Lab Sample ID: 480-50846-3

Matrix: Solid
Percent Solids: 95.5

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) Analyte Result Qualifier RLMDL Unit Prepared Analyzed Dil Fac 0.111 mg/Kg PCB-1016 <0.174 0.174 ₩ 11/29/13 07:58 12/03/13 22:52 PCB-1221 <0.174 0.174 0.0844 mg/Kg ₩ 11/29/13 07:58 12/03/13 22:52 5 PCB-1232 <0.174 0.174 0.0739 mg/Kg 11/29/13 07:58 12/03/13 22:52 PCB-1242 <0.174 0.174 0.0686 mg/Kg 11/29/13 07:58 12/03/13 22:52 PCB-1248 <0.174 0.174 0.0897 mg/Kg 11/29/13 07:58 12/03/13 22:52 PCB-1254 < 0.174 0.174 0.0897 mg/Kg 12/03/13 22:52 11/29/13 07:58 PCB-1260 0.430 0.174 0.0897 mg/Kg 11/29/13 07:58 12/03/13 22:52 PCB-1262 <0.174 0.174 0.142 mg/Kg 11/29/13 07:58 12/03/13 22:52 5 PCB-1268 <0.174 0.174 0.0739 mg/Kg 11/29/13 07:58 12/03/13 22:52 5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		30 - 150	11/29/13 07:5	12/03/13 22:52	5
Tetrachloro-m-xylene	83		30 - 150	11/29/13 07:5	58 12/03/13 22:52	5
DCB Decachlorobiphenyl	117		30 - 150	11/29/13 07:5	58 12/03/13 22:52	5
DCB Decachlorobiphenyl	77		30 - 150	11/29/13 07:5	58 12/03/13 22:52	5

Method: 6010 - Metals (ICP) Analyte	Result Q	ualifier R	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.514	0.51			— <del>-</del>	11/26/13 10:00	12/01/13 00:44	1
Arsenic	5.87	1.0		mg/Kg	₩	11/26/13 10:00	12/02/13 17:03	1
Barium	47.0	0.51		mg/Kg	₩	11/26/13 10:00	12/01/13 00:44	1
Beryllium	0.363	0.20		mg/Kg		11/26/13 10:00	12/01/13 00:44	1
Cadmium	1.82	0.20	0.0308	mg/Kg	₽	11/26/13 10:00	12/01/13 00:44	1
Chromium	26.2	0.51	0.205	mg/Kg	₽	11/26/13 10:00	12/01/13 00:44	1
Nickel	33.7	1.0	0.236	mg/Kg	φ.	11/26/13 10:00	12/01/13 00:44	1
Thallium	<1.03	1.0	0.308	mg/Kg	₽	11/26/13 10:00	12/02/13 17:03	1
Vanadium	19.9	0.51	0.113	mg/Kg	₽	11/26/13 10:00	12/01/13 00:44	1
Zinc	338 B	2.5	0.157	mg/Kg	\$	11/26/13 10:00	12/01/13 00:44	1
Lead	200	0.51	0.246	mg/Kg	₽	11/26/13 10:00	12/01/13 00:44	1
Selenium	0.561	0.51	0.411	mg/Kg	₩	11/26/13 10:00	12/02/13 17:03	1
Antimony	0.683 ^	0.51	0.411	mg/Kg	\$	11/26/13 10:00	12/02/13 17:03	1

Method: 7471A - Mercury (CVAA)							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.104	0.100	0.00813 mg/Kg	<del>*</del>	11/29/13 08:40	11/29/13 15:22	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-59 (0-0.25)

Lab Sample ID: 480-50846-4 Date Collected: 11/22/13 08:25 Matrix: Solid Date Received: 11/26/13 02:00

Percent Solids: 93.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0356		0.0356	0.0227	mg/Kg	<del>\</del>	11/29/13 07:58	12/03/13 23:08	1
PCB-1221	< 0.0356		0.0356	0.0173	mg/Kg	₩	11/29/13 07:58	12/03/13 23:08	1
PCB-1232	< 0.0356		0.0356	0.0151	mg/Kg	₩	11/29/13 07:58	12/03/13 23:08	1
PCB-1242	<0.0356		0.0356	0.0140	mg/Kg	₽	11/29/13 07:58	12/03/13 23:08	1
PCB-1248	< 0.0356		0.0356	0.0183	mg/Kg	☼	11/29/13 07:58	12/03/13 23:08	1
PCB-1254	< 0.0356		0.0356	0.0183	mg/Kg	₩	11/29/13 07:58	12/03/13 23:08	1
PCB-1260	0.125		0.0356	0.0183	mg/Kg	\$	11/29/13 07:58	12/03/13 23:08	1
PCB-1262	< 0.0356		0.0356	0.0291	mg/Kg	₩	11/29/13 07:58	12/03/13 23:08	1
PCB-1268	<0.0356		0.0356	0.0151	mg/Kg	₽	11/29/13 07:58	12/03/13 23:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	33		30 - 150				11/29/13 07:58	12/03/13 23:08	1
Tetrachloro-m-xylene	31		30 - 150				11/29/13 07:58	12/03/13 23:08	1
DCB Decachlorobiphenyl	30		30 - 150				11/29/13 07:58	12/03/13 23:08	1
DCB Decachlorobiphenyl	24	X	30 - 150				11/29/13 07:58	12/03/13 23:08	1

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.568		0.568	0.227	mg/Kg	<del>\</del>	11/26/13 10:00	12/01/13 00:54	1
Arsenic	3.62		1.14	0.454	mg/Kg	₽	11/26/13 10:00	12/02/13 17:05	1
Barium	29.2		0.568	0.125	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Beryllium	0.293		0.227	0.0318	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Cadmium	0.677		0.227	0.0341	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Chromium	21.5		0.568	0.227	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Nickel	29.4		1.14	0.261	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Thallium	<1.14		1.14	0.341	mg/Kg	₽	11/26/13 10:00	12/02/13 17:05	1
Vanadium	23.1		0.568	0.125	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Zinc	116	В	2.84	0.174	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Lead	100		0.568	0.272	mg/Kg	₽	11/26/13 10:00	12/01/13 00:54	1
Selenium	1.19		0.568	0.454	mg/Kg	₩	11/26/13 10:00	12/02/13 17:05	1
Antimony	<0.568	Λ	0.568	0.454	mg/Kg	₽	11/26/13 10:00	12/02/13 17:05	1

Method: 7471A - Mercury (CVAA)										
Analyte	Result	Qualifier	RL	MDL	Unit	D		Prepared	Analyzed	Dil Fac
Mercury	0.0760	J	0.111	0.00896	mg/Kg	<u> </u>	-	11/29/13 08:40	11/29/13 15:24	1

Client Sample ID: WCSS-54 (0-0.25) Lab Sample ID: 480-50846-5

Date Collected: 11/22/13 08:35 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 96.2

Method: 8082 - Polychlorir	nated Biphenyls (GC/E	CD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.172		0.172	0.110	mg/Kg	*	11/29/13 07:58	12/03/13 23:39	5
PCB-1221	<0.172		0.172	0.0836	mg/Kg	₩	11/29/13 07:58	12/03/13 23:39	5
PCB-1232	<0.172		0.172	0.0731	mg/Kg	₩	11/29/13 07:58	12/03/13 23:39	5
PCB-1242	<0.172		0.172	0.0679	mg/Kg	\$	11/29/13 07:58	12/03/13 23:39	5
PCB-1248	<0.172		0.172	0.0888	mg/Kg	₩	11/29/13 07:58	12/03/13 23:39	5
PCB-1254	<0.172		0.172	0.0888	mg/Kg	₩	11/29/13 07:58	12/03/13 23:39	5
PCB-1260	0.376		0.172	0.0888	mg/Kg	\$	11/29/13 07:58	12/03/13 23:39	5
PCB-1262	<0.172		0.172	0.141	mg/Kg	₽	11/29/13 07:58	12/03/13 23:39	5

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-5

Matrix: Solid Percent Solids: 96.2

Client Sample ID: WCSS-54 (0-0.25)

Date Collected: 11/22/13 08:35 Date Received: 11/26/13 02:00

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued) Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac ₩ PCB-1268 <0.172 0.172 0.0731 mg/Kg 11/29/13 07:58 12/03/13 23:39 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac Tetrachloro-m-xylene 67 30 - 150 11/29/13 07:58 12/03/13 23:39 5 63 5 Tetrachloro-m-xylene 30 - 150 11/29/13 07:58 12/03/13 23:39 DCB Decachlorobiphenyl 0 X 30 - 150 11/29/13 07:58 12/03/13 23:39 5 0 X 30 - 150 5 DCB Decachlorobiphenyl 11/29/13 07:58 12/03/13 23:39

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.489		0.489	0.195	mg/Kg	<del></del>	11/26/13 10:00	12/01/13 00:56	1
Arsenic	3.19		0.977	0.391	mg/Kg	₽	11/26/13 10:00	12/02/13 17:08	1
Barium	32.6		0.489	0.107	mg/Kg	₽	11/26/13 10:00	12/01/13 00:56	1
Beryllium	0.358		0.195	0.0274	mg/Kg	\$	11/26/13 10:00	12/01/13 00:56	1
Cadmium	0.690		0.195	0.0293	mg/Kg	₩	11/26/13 10:00	12/01/13 00:56	1
Chromium	34.2		0.489	0.195	mg/Kg	₽	11/26/13 10:00	12/01/13 00:56	1
Nickel	28.4		0.977	0.225	mg/Kg	₩	11/26/13 10:00	12/01/13 00:56	1
Thallium	<0.977		0.977	0.293	mg/Kg	₩	11/26/13 10:00	12/02/13 17:08	1
Vanadium	23.9		0.489	0.107	mg/Kg	₩	11/26/13 10:00	12/01/13 00:56	1
Zinc	131	В	2.44	0.150	mg/Kg	₩	11/26/13 10:00	12/01/13 00:56	1
Lead	106		0.489	0.235	mg/Kg	₩	11/26/13 10:00	12/01/13 00:56	1
Selenium	0.783		0.489	0.391	mg/Kg	₩	11/26/13 10:00	12/02/13 17:08	1
Antimony	<0.489	^	0.489	0.391	mg/Kg	₩	11/26/13 10:00	12/02/13 17:08	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.111		0.0936	0.00758	mg/Kg	₽	11/29/13 08:40	11/29/13 15:26	1

Client Sample ID: WCSS-53 (0-0.25)

DCB Decachlorobiphenyl

Lab Sample ID: 480-50846-6 Date Collected: 11/22/13 08:50 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 96.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.172		0.172	0.110	mg/Kg	<del>-</del>	11/29/13 07:58	12/03/13 23:55	5
PCB-1221	<0.172		0.172	0.0836	mg/Kg	₽	11/29/13 07:58	12/03/13 23:55	5
PCB-1232	<0.172		0.172	0.0731	mg/Kg	₽	11/29/13 07:58	12/03/13 23:55	5
PCB-1242	<0.172		0.172	0.0679	mg/Kg	*	11/29/13 07:58	12/03/13 23:55	5
PCB-1248	<0.172		0.172	0.0888	mg/Kg	₽	11/29/13 07:58	12/03/13 23:55	5
PCB-1254	<0.172		0.172	0.0888	mg/Kg	₩	11/29/13 07:58	12/03/13 23:55	5
PCB-1260	0.381		0.172	0.0888	mg/Kg	₽	11/29/13 07:58	12/03/13 23:55	5
PCB-1262	<0.172		0.172	0.141	mg/Kg	₩	11/29/13 07:58	12/03/13 23:55	5
PCB-1268	<0.172		0.172	0.0731	mg/Kg	₩	11/29/13 07:58	12/03/13 23:55	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		30 - 150				11/29/13 07:58	12/03/13 23:55	5
Tetrachloro-m-xylene	65		30 - 150				11/29/13 07:58	12/03/13 23:55	5
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/03/13 23:55	5

TestAmerica Buffalo

12/03/13 23:55

11/29/13 07:58

30 - 150

0 X

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 08:50

Date Received: 11/26/13 02:00

Client Sample ID: WCSS-53 (0-0.25)

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-6

Matrix: Solid

Percent Solids: 96.3

Method: 6010 - Metals (ICP)	Daguit	Ovelities.	DI	MDI	I I miá		Duamanad	Amalumad	Dil Faa
Analyte		Qualifier	RL -	MDL		D	Prepared	Analyzed	Dil Fac
Silver	<0.550		0.550	0.220	mg/Kg	₩	11/26/13 10:00	12/01/13 00:58	1
Arsenic	4.89		1.10	0.440	mg/Kg	₽	11/26/13 10:00	12/02/13 17:10	1
Barium	39.5		0.550	0.121	mg/Kg	₩	11/26/13 10:00	12/01/13 00:58	1
Beryllium	0.287		0.220	0.0308	mg/Kg	₽	11/26/13 10:00	12/01/13 00:58	1
Cadmium	1.32		0.220	0.0330	mg/Kg	₽	11/26/13 10:00	12/01/13 00:58	1
Chromium	55.3		0.550	0.220	mg/Kg	₽	11/26/13 10:00	12/01/13 00:58	1
Nickel	47.4		1.10	0.253	mg/Kg	*	11/26/13 10:00	12/01/13 00:58	1
Thallium	<1.10		1.10	0.330	mg/Kg	₽	11/26/13 10:00	12/02/13 17:10	1
Vanadium	24.1		0.550	0.121	mg/Kg	₽	11/26/13 10:00	12/01/13 00:58	1
Zinc	239	В	2.75	0.168	mg/Kg	\$	11/26/13 10:00	12/01/13 00:58	1
Lead	161		0.550	0.264	mg/Kg	₽	11/26/13 10:00	12/01/13 00:58	1
Selenium	0.914		0.550	0.440	mg/Kg	₽	11/26/13 10:00	12/02/13 17:10	1
Antimony	0.573	^	0.550	0.440	mg/Kg	\$	11/26/13 10:00	12/02/13 17:10	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.172		0.0985	0.00798	mg/Kg	₩	11/29/13 08:40	11/29/13 15:28	1

Client Sample ID: WCSS-52 (0-0.25)

Lab Sample ID: 480-50846-7 **Matrix: Solid** 

Date Collected: 11/22/13 09:00 Date Received: 11/26/13 02:00 Percent Solids: 88.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.376		0.376	0.239	mg/Kg	<del></del>	11/29/13 07:58	12/04/13 00:11	10
PCB-1221	<0.376		0.376	0.182	mg/Kg	₽	11/29/13 07:58	12/04/13 00:11	10
PCB-1232	<0.376		0.376	0.160	mg/Kg	₽	11/29/13 07:58	12/04/13 00:11	10
PCB-1242	<0.376		0.376	0.148	mg/Kg	*	11/29/13 07:58	12/04/13 00:11	10
PCB-1248	<0.376		0.376	0.194	mg/Kg	₽	11/29/13 07:58	12/04/13 00:11	10
PCB-1254	<0.376		0.376	0.194	mg/Kg	₽	11/29/13 07:58	12/04/13 00:11	10
PCB-1260	1.88		0.376	0.194	mg/Kg	₽	11/29/13 07:58	12/04/13 00:11	10
PCB-1262	<0.376		0.376	0.308	mg/Kg	₽	11/29/13 07:58	12/04/13 00:11	10
PCB-1268	<0.376		0.376	0.160	mg/Kg	₩	11/29/13 07:58	12/04/13 00:11	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				11/29/13 07:58	12/04/13 00:11	10
Tetrachloro-m-xylene	0	X	30 - 150				11/29/13 07:58	12/04/13 00:11	10
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/04/13 00:11	10
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/04/13 00:11	10

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.621	·	0.621	0.248	mg/Kg	<u></u>	11/26/13 10:00	12/01/13 01:00	1
Arsenic	3.52		1.24	0.497	mg/Kg	₩	11/26/13 10:00	12/02/13 17:13	1
Barium	249		0.621	0.137	mg/Kg	₽	11/26/13 10:00	12/01/13 01:00	1
Beryllium	0.271		0.248	0.0348	mg/Kg	₽	11/26/13 10:00	12/01/13 01:00	1
Cadmium	3.51		0.248	0.0373	mg/Kg	₩	11/26/13 10:00	12/01/13 01:00	1
Chromium	29.1		0.621	0.248	mg/Kg	₽	11/26/13 10:00	12/01/13 01:00	1
Nickel	32.0		1.24	0.286	mg/Kg	₩	11/26/13 10:00	12/01/13 01:00	1
Thallium	<1.24		1.24	0.373	mg/Kg	₽	11/26/13 10:00	12/02/13 17:13	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 09:00

Date Received: 11/26/13 02:00

Client Sample ID: WCSS-52 (0-0.25)

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-7

Percent Solids: 88.1

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	17.9		0.621	0.137	mg/Kg	₩	11/26/13 10:00	12/01/13 01:00	1
Zinc	722	В	3.10	0.190	mg/Kg	\$	11/26/13 10:00	12/01/13 01:00	1
Lead	338		0.621	0.298	mg/Kg	₽	11/26/13 10:00	12/01/13 01:00	1
Selenium	<0.621		0.621	0.497	mg/Kg	₽	11/26/13 10:00	12/02/13 17:13	1
Antimony	1.76	^	0.621	0.497	mg/Kg		11/26/13 10:00	12/02/13 17:13	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.830		0.111	0.00898	mg/Kg	<del>\$</del>	11/29/13 08:40	11/29/13 15:30	1

Client Sample ID: WCSS-51 (0-0.25) Lab Sample ID: 480-50846-8

Date Collected: 11/22/13 09:10 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 88.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.739		0.739	0.470	mg/Kg	<del>\tilde{\pi}</del>	12/03/13 10:08	12/09/13 17:07	20
PCB-1221	<0.739		0.739	0.358	mg/Kg	₽	12/03/13 10:08	12/09/13 17:07	20
PCB-1232	<0.739		0.739	0.314	mg/Kg	₽	12/03/13 10:08	12/09/13 17:07	20
PCB-1242	<0.739		0.739	0.291	mg/Kg	₽	12/03/13 10:08	12/09/13 17:07	20
PCB-1248	<0.739		0.739	0.381	mg/Kg	₽	12/03/13 10:08	12/09/13 17:07	20
PCB-1254	<0.739		0.739	0.381	mg/Kg	₽	12/03/13 10:08	12/09/13 17:07	20
PCB-1260	3.15		0.739	0.381	mg/Kg	<b>\$</b>	12/03/13 10:08	12/09/13 17:07	20
PCB-1262	<0.739		0.739	0.605	mg/Kg	₩	12/03/13 10:08	12/09/13 17:07	20
PCB-1268	<0.739		0.739	0.314	mg/Kg	₽	12/03/13 10:08	12/09/13 17:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150	12/03/13 10:08	12/09/13 17:07	20
Tetrachloro-m-xylene	0	X	30 - 150	12/03/13 10:08	12/09/13 17:07	20
DCB Decachlorobiphenyl	0	X	30 - 150	12/03/13 10:08	12/09/13 17:07	20
DCB Decachlorobiphenyl	0	Χ	30 - 150	12/03/13 10:08	12/09/13 17:07	20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.579		0.579	0.231	mg/Kg	<del>\</del>	11/26/13 10:00	12/01/13 01:03	1
Arsenic	5.47		1.16	0.463	mg/Kg	₽	11/26/13 10:00	12/02/13 17:16	1
Barium	78.1		0.579	0.127	mg/Kg	₽	11/26/13 10:00	12/01/13 01:03	1
Beryllium	0.758		0.231	0.0324	mg/Kg	<b>\$</b>	11/26/13 10:00	12/01/13 01:03	1
Cadmium	5.51		0.231	0.0347	mg/Kg	₽	11/26/13 10:00	12/01/13 01:03	1
Chromium	29.9		0.579	0.231	mg/Kg	₽	11/26/13 10:00	12/01/13 01:03	1
Nickel	32.5		1.16	0.266	mg/Kg	₽	11/26/13 10:00	12/01/13 01:03	1
Thallium	<1.16		1.16	0.347	mg/Kg	₽	11/26/13 10:00	12/02/13 17:16	1
Vanadium	16.2		0.579	0.127	mg/Kg	₽	11/26/13 10:00	12/01/13 01:03	1
Zinc	613	В	2.89	0.177	mg/Kg	₽	11/26/13 10:00	12/01/13 01:03	1
Lead	617		0.579	0.278	mg/Kg	₽	11/26/13 10:00	12/01/13 01:03	1
Selenium	0.520	J	0.579	0.463	mg/Kg	☼	11/26/13 10:00	12/02/13 17:16	1
Antimony	2.60	Λ	0.579	0.463	mg/Kg	₽	11/26/13 10:00	12/02/13 17:16	1

Method: 7471A - Mercury (CVAA) Analyte	Result	Qualifier	RL	MDL	Unit	n	Prepared	Analvzed	Dil Fac
		Qualifier							
Mercury	1.76		1.07	0.0865	mg/Kg	₽	11/29/13 08:40	11/29/13 15:32	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-49 (0-0.25)

Date Collected: 11/22/13 09:20 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50846-9

Matrix: Solid Percent Solids: 86.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.383		0.383	0.244	mg/Kg	\$	11/29/13 07:58	12/03/13 16:34	10
PCB-1221	<0.383		0.383	0.186	mg/Kg	₽	11/29/13 07:58	12/03/13 16:34	10
PCB-1232	<0.383		0.383	0.163	mg/Kg	₩	11/29/13 07:58	12/03/13 16:34	10
PCB-1242	<0.383		0.383	0.151	mg/Kg	₽	11/29/13 07:58	12/03/13 16:34	10
PCB-1248	<0.383		0.383	0.198	mg/Kg	₩	11/29/13 07:58	12/03/13 16:34	10
PCB-1254	<0.383		0.383	0.198	mg/Kg	₩	11/29/13 07:58	12/03/13 16:34	10
PCB-1260	1.55		0.383	0.198	mg/Kg	₽	11/29/13 07:58	12/03/13 16:34	10
PCB-1262	<0.383		0.383	0.314	mg/Kg	₩	11/29/13 07:58	12/03/13 16:34	10
PCB-1268	<0.383		0.383	0.163	mg/Kg	₽	11/29/13 07:58	12/03/13 16:34	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150				11/29/13 07:58	12/03/13 16:34	10
Tetrachloro-m-xylene	0	X	30 - 150				11/29/13 07:58	12/03/13 16:34	10
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/03/13 16:34	10
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/03/13 16:34	10

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	2.63		0.552	0.221	mg/Kg	<u> </u>	11/26/13 10:00	12/01/13 01:05	1
Arsenic	9.11		1.10	0.441	mg/Kg	₩	11/26/13 10:00	12/02/13 17:18	1
Barium	392		0.552	0.121	mg/Kg	₽	11/26/13 10:00	12/01/13 01:05	1
Beryllium	0.430		0.221	0.0309	mg/Kg	₽	11/26/13 10:00	12/01/13 01:05	1
Cadmium	6.10		0.221	0.0331	mg/Kg	₩	11/26/13 10:00	12/01/13 01:05	1
Chromium	44.1		0.552	0.221	mg/Kg	₽	11/26/13 10:00	12/01/13 01:05	1
Nickel	50.8		1.10	0.254	mg/Kg	₩	11/26/13 10:00	12/01/13 01:05	1
Thallium	<1.10		1.10	0.331	mg/Kg	₩	11/26/13 10:00	12/02/13 17:18	1
Vanadium	23.1		0.552	0.121	mg/Kg	₩	11/26/13 10:00	12/01/13 01:05	1
Zinc	1500	В	2.76	0.169	mg/Kg	₩.	11/26/13 10:00	12/01/13 01:05	1
Lead	1340		0.552	0.265	mg/Kg	₩	11/26/13 10:00	12/01/13 01:05	1
Selenium	1.08		0.552	0.441	mg/Kg	₩	11/26/13 10:00	12/02/13 17:18	1
Antimony	16.4	Λ	0.552	0.441	mg/Kg	₩.	11/26/13 10:00	12/02/13 17:18	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	8.79		2.29	0.185	mg/Kg	<del></del>	11/29/13 08:40	11/29/13 15:33	20

Client Sample ID: WCSS-50 (0-0.25) Lab Sample ID: 480-50846-10

Date Collected: 11/22/13 09:30 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 90.4

Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.564		0.564	0.226	mg/Kg	₽	11/26/13 10:00	12/01/13 01:08	1
Arsenic	3.32		1.13	0.451	mg/Kg	₽	11/26/13 10:00	12/02/13 17:21	1
Barium	31.8		0.564	0.124	mg/Kg	₩	11/26/13 10:00	12/01/13 01:08	1
Beryllium	0.288		0.226	0.0316	mg/Kg	₽	11/26/13 10:00	12/01/13 01:08	1
Cadmium	0.524		0.226	0.0338	mg/Kg	₩	11/26/13 10:00	12/01/13 01:08	1
Chromium	10.4		0.564	0.226	mg/Kg	₩	11/26/13 10:00	12/01/13 01:08	1
Nickel	9.59		1.13	0.259	mg/Kg	₽	11/26/13 10:00	12/01/13 01:08	1
Thallium	<1.13		1.13	0.338	mg/Kg	₽	11/26/13 10:00	12/02/13 17:21	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-10

Matrix: Solid
Percent Solids: 90.4

Cilei	π	Sam	ріе	:טו	WC:	55-50	(0-0.25)

Date Collected: 11/22/13 09:30 Date Received: 11/26/13 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	23.8		0.564	0.124	mg/Kg	<del></del>	11/26/13 10:00	12/01/13 01:08	1
Zinc	103	В	2.82	0.173	mg/Kg	*	11/26/13 10:00	12/01/13 01:08	1
Lead	69.7		0.564	0.271	mg/Kg	₽	11/26/13 10:00	12/01/13 01:08	1
Selenium	<0.564		0.564	0.451	mg/Kg	₽	11/26/13 10:00	12/02/13 17:21	1
Antimony	<0.564	٨	0.564	0.451	mg/Kg		11/26/13 10:00	12/02/13 17:21	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0705	J	0.113	0.00912	mg/Kg	<del></del>	11/29/13 08:40	11/29/13 15:36	1

Client Sample ID: WCSS-58 (0-0.25)

Lab Sample ID: 480-50846-11

Date Collected: 11/22/13 09:40
Date Received: 11/26/13 02:00
Matrix: Solid
Percent Solids: 93.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.180		0.180	0.115	mg/Kg	<del>-</del>	11/29/13 07:58	12/03/13 16:50	5
PCB-1221	<0.180		0.180	0.0874	mg/Kg	₽	11/29/13 07:58	12/03/13 16:50	5
PCB-1232	<0.180		0.180	0.0765	mg/Kg	₽	11/29/13 07:58	12/03/13 16:50	5
PCB-1242	<0.180		0.180	0.0710	mg/Kg	\$	11/29/13 07:58	12/03/13 16:50	5
PCB-1248	<0.180		0.180	0.0929	mg/Kg	₽	11/29/13 07:58	12/03/13 16:50	5
PCB-1254	<0.180		0.180	0.0929	mg/Kg	₩	11/29/13 07:58	12/03/13 16:50	5
PCB-1260	0.305		0.180	0.0929	mg/Kg	₽	11/29/13 07:58	12/03/13 16:50	5
PCB-1262	<0.180		0.180	0.147	mg/Kg	₩	11/29/13 07:58	12/03/13 16:50	5
PCB-1268	<0.180		0.180	0.0765	mg/Kg	₩	11/29/13 07:58	12/03/13 16:50	5

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	e 75	30 - 15	11/29/13 07:58	12/03/13 16:50	5
Tetrachloro-m-xylene	e 74	30 - 150	11/29/13 07:58	12/03/13 16:50	5
DCB Decachlorobiph	nenyl 103	30 - 15	11/29/13 07:58	12/03/13 16:50	5
DCB Decachlorobiph	nenyl 74	30 - 15	) 11/29/13 07:58	12/03/13 16:50	5

Method: 6010 - Metals (IC	,							
Analyte	Result Quali	ifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.493	0.493	0.197	mg/Kg	<del></del>	11/26/13 10:00	12/01/13 01:10	1
Arsenic	3.42	0.986	0.394	mg/Kg	₽	11/26/13 10:00	12/02/13 17:34	1
Barium	49.1	0.493	0.108	mg/Kg	₽	11/26/13 10:00	12/01/13 01:10	1
Beryllium	0.277	0.197	0.0276	mg/Kg	*	11/26/13 10:00	12/01/13 01:10	1
Cadmium	0.654	0.197	0.0296	mg/Kg	₽	11/26/13 10:00	12/01/13 01:10	1
Chromium	25.4	0.493	0.197	mg/Kg	₽	11/26/13 10:00	12/01/13 01:10	1
Nickel	23.7	0.986	0.227	mg/Kg	₽	11/26/13 10:00	12/01/13 01:10	1
Thallium	<0.986	0.986	0.296	mg/Kg	₽	11/26/13 10:00	12/02/13 17:34	1
Vanadium	22.9	0.493	0.108	mg/Kg	₽	11/26/13 10:00	12/01/13 01:10	1
Zinc	137 B	2.46	0.151	mg/Kg	₽	11/26/13 10:00	12/02/13 17:34	1
Lead	121	0.493	0.237	mg/Kg	₽	11/26/13 10:00	12/01/13 01:10	1
Selenium	<0.493	0.493	0.394	mg/Kg	₩	11/26/13 10:00	12/02/13 17:34	1
Antimony	<0.493 ^	0.493	0.394	mg/Kg		11/26/13 10:00	12/02/13 17:34	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0807	J	0.0981	0.00794	mg/Kg	<del>\</del>	11/29/13 08:40	11/29/13 15:41	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 09:40

Date Received: 11/26/13 02:00

Tetrachloro-m-xylene

Client Sample ID: WCSS-958 (0-0.25)

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-12

Matrix: Solid
Percent Solids: 90.5

12/03/13 17:06

Lab Sample ID: 480-50846-13

11/29/13 07:58

Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.182	0.182	0.116	mg/Kg	\$	11/29/13 07:58	12/03/13 17:06	5
PCB-1221	<0.182	0.182	0.0881	mg/Kg	₽	11/29/13 07:58	12/03/13 17:06	5
PCB-1232	<0.182	0.182	0.0771	mg/Kg	₩	11/29/13 07:58	12/03/13 17:06	5
PCB-1242	<0.182	0.182	0.0716	mg/Kg	₽	11/29/13 07:58	12/03/13 17:06	5
PCB-1248	<0.182	0.182	0.0936	mg/Kg	₽	11/29/13 07:58	12/03/13 17:06	5
PCB-1254	<0.182	0.182	0.0936	mg/Kg	₩	11/29/13 07:58	12/03/13 17:06	5
PCB-1260	0.254	0.182	0.0936	mg/Kg		11/29/13 07:58	12/03/13 17:06	5
PCB-1262	<0.182	0.182	0.149	mg/Kg	₽	11/29/13 07:58	12/03/13 17:06	5
PCB-1268	<0.182	0.182	0.0771	mg/Kg	₽	11/29/13 07:58	12/03/13 17:06	5
Surrogate	%Recovery Qua	alifier Limits				Prepared	Analyzed	Dil Fac

Tetrachloro-m-xylene 70 5 30 - 150 11/29/13 07:58 12/03/13 17:06 DCB Decachlorobiphenyl 111 30 - 150 11/29/13 07:58 12/03/13 17:06 5 DCB Decachlorobiphenyl 66 30 - 150 11/29/13 07:58 12/03/13 17:06

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Client Sample ID: WCSS-56 (0-0.25)

Date Collected: 11/22/13 10:00 Matrix: Solid
Date Received: 11/26/13 02:00 Percent Solids: 91.2

Pate Received: 11/26/13 02:00								Percent Soli	ds: 91.2
Method: 8260C - Volatile Orgar Analyte	•	GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00390		0.00390	0.000779	mg/Kg	<u> </u>	11/26/13 10:30	11/26/13 15:06	
1,1,1-Trichloroethane	<0.00390		0.00390	0.000566	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,1,2,2-Tetrachloroethane	<0.00390		0.00390	0.00126	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,1,2-Trichloroethane	<0.00390		0.00390	0.00101	mg/Kg		11/26/13 10:30	11/26/13 15:06	
1,1-Dichloroethane	< 0.00390		0.00390	0.000950	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,1-Dichloroethene	<0.00390		0.00390	0.000954	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,1-Dichloropropene	<0.00390		0.00390	0.00111	mg/Kg	₩.	11/26/13 10:30	11/26/13 15:06	
1,2,3-Trichlorobenzene	<0.00390		0.00390	0.000827	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,2,3-Trichloropropane	< 0.00390		0.00390	0.000793	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,2,4-Trichlorobenzene	<0.00390		0.00390	0.000474	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
1,2,4-Trimethylbenzene	< 0.00390		0.00390	0.00150	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,2-Dibromo-3-Chloropropane	<0.0390		0.0390	0.00390	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
1,2-Dichlorobenzene	<0.00390		0.00390	0.000609	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
1,2-Dichloroethane	<0.00390		0.00390	0.000391	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
1,2-Dichloropropane	<0.00390		0.00390	0.00390	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,3,5-Trimethylbenzene	<0.00390		0.00390	0.000502	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
1,3-Dichlorobenzene	<0.00390		0.00390	0.000400	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,3-Dichloropropane	<0.00390		0.00390	0.000467	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,4-Dichlorobenzene	<0.00390		0.00390	0.00109	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
1,4-Dioxane	<0.390		0.390	0.0376	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
2,2-Dichloropropane	< 0.00390		0.00390	0.00132	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
2-Butanone (MEK)	<0.0390	*	0.0390	0.00285	mg/Kg	₩.	11/26/13 10:30	11/26/13 15:06	
2-Chlorotoluene	<0.00390		0.00390	0.000511	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
2-Hexanone	< 0.0390		0.0390	0.00390	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
4-Chlorotoluene	<0.00390		0.00390	0.000919	mg/Kg	ф	11/26/13 10:30	11/26/13 15:06	
4-Isopropyltoluene	<0.00390		0.00390	0.000625	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
4-Methyl-2-pentanone (MIBK)	<0.0390		0.0390	0.00256	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Acetone	<0.390		0.390	0.00656	mg/Kg		11/26/13 10:30	11/26/13 15:06	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-13

Matrix: Solid

Percent Solids: 91.2

C	lient	Sample	e ID:	WCSS-5	6 (0-0.25)
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Date Collected: 11/22/13 10:00 Date Received: 11/26/13 02:00

Method: 8260C - Volatile Orga Analyte	Result C		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00390		0.00390	0.000382	mg/Kg	<del>-</del>	11/26/13 10:30	11/26/13 15:06	
Bromobenzene	<0.00390		0.00390	0.00137	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Bromoform	<0.00390		0.00390	0.00390	mg/Kg	ф.	11/26/13 10:30	11/26/13 15:06	
Bromomethane	<0.00779		0.00779	0.000701	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Carbon disulfide	<0.00390		0.00390	0.00390	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Carbon tetrachloride	<0.00390		0.00390	0.000754			11/26/13 10:30	11/26/13 15:06	
Chlorobenzene	<0.00390		0.00390	0.00103		₽	11/26/13 10:30	11/26/13 15:06	
Chlorobromomethane	<0.00390		0.00390	0.000562		₩	11/26/13 10:30	11/26/13 15:06	
Chlorodibromomethane	<0.00390		0.00390	0.000997			11/26/13 10:30	11/26/13 15:06	
Chloroethane	<0.00779		0.00779	0.00176	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Chloroform	<0.00390		0.00390	0.000481	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Chloromethane	<0.00390		0.00330	0.000471	mg/Kg		11/26/13 10:30	11/26/13 15:06	
cis-1,2-Dichloroethene	<0.00779		0.00390	0.000997		₽	11/26/13 10:30	11/26/13 15:06	
	<0.00390		0.00390	0.000997	mg/Kg mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
cis-1,3-Dichloropropene					mg/Kg	~ 		11/26/13 15:06	
Dichlorobromomethane  Dichlorodifluoromethane	<0.00390		0.00390	0.00104	mg/Kg	₩	11/26/13 10:30		
Dichlorodifluoromethane	<0.00779 <0.00390		0.00779 0.00390	0.000644	mg/Kg	<b>☆</b>	11/26/13 10:30	11/26/13 15:06	
Ethyl ether				0.00327	mg/Kg		11/26/13 10:30	11/26/13 15:06	
Ethylbenzene	0.00307 J		0.00390	0.000538	mg/Kg	<b>₽</b>	11/26/13 10:30	11/26/13 15:06	
Ethylene Dibromide	<0.00390		0.00390	0.00100	mg/Kg		11/26/13 10:30	11/26/13 15:06	
Hexachlorobutadiene	<0.00390		0.00390	0.000913	mg/Kg		11/26/13 10:30	11/26/13 15:06	
sopropyl ether	<0.00390		0.00390	0.00390	mg/Kg	₩.	11/26/13 10:30	11/26/13 15:06	
sopropylbenzene	<0.00390		0.00390	0.00117			11/26/13 10:30	11/26/13 15:06	
Methyl tert-butyl ether	<0.00390		0.00390	0.000765		₩	11/26/13 10:30	11/26/13 15:06	
Methylene Chloride	<0.00390		0.00390	0.00358	mg/Kg	₽.	11/26/13 10:30	11/26/13 15:06	
m-Xylene & p-Xylene	0.0130	(	0.00779	0.00131	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Naphthalene	<0.0390		0.0390	0.00104	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
n-Butylbenzene	<0.00390	(	0.00390	0.000678	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
N-Propylbenzene	<0.00390	(	0.00390	0.000623	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
o-Xylene	0.00510	(	0.00390	0.00102	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
sec-Butylbenzene	<0.00390	(	0.00390	0.000678	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Styrene	<0.00390	(	0.00390	0.000390	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Tert-amyl methyl ether	<0.00390	(	0.00390	0.00199	mg/Kg	☼	11/26/13 10:30	11/26/13 15:06	
Tert-butyl ethyl ether	<0.00390	(	0.00390	0.00343	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
tert-Butylbenzene	<0.00390	(	0.00390	0.000810	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Tetrachloroethene	0.0510	(	0.00390	0.00105	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
Tetrahydrofuran	<0.0779		0.0779	0.00717	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
Toluene	< 0.00390	(	0.00390	0.000589	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
rans-1,2-Dichloroethene	<0.00390	(	0.00390	0.000804	mg/Kg	₽	11/26/13 10:30	11/26/13 15:06	
trans-1,3-Dichloropropene	<0.00390	)	0.00390	0.00343	mg/Kg		11/26/13 10:30	11/26/13 15:06	
Trichloroethene	<0.00390	(	0.00390	0.00171	mg/Kg	₩	11/26/13 10:30	11/26/13 15:06	
Trichlorofluoromethane	<0.00779	(	0.00779	0.000737		₩	11/26/13 10:30	11/26/13 15:06	
Vinyl chloride	<0.00390		0.00390	0.000950	mg/Kg		11/26/13 10:30	11/26/13 15:06	
Dibromomethane	<0.00390		0.00390	0.000802		₽	11/26/13 10:30	11/26/13 15:06	
Surrogate	%Recovery G	Qualifier Lii	mits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	101	70	130				11/26/13 10:30	11/26/13 15:06	
1,2-Dichloroethane-d4 (Surr)	107	70	_ 130				11/26/13 10:30	11/26/13 15:06	
4-Bromofluorobenzene (Surr)	96	70	- 130				11/26/13 10:30	11/26/13 15:06	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-14

Matrix: Solid

Percent Solids: 92.8

Clie	nt Samp	ole ID:	WCSS-55	(0-0.25)
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Date Collected: 11/22/13 10:05 Date Received: 11/26/13 02:00

Method: 8260C - Volatile Organi Analyte	Result Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00207 <b>Qualifici</b>	0.00207	0.000413	mg/Kg	— <del>-</del>	11/26/13 10:30	11/26/13 15:31	
1,1,1-Trichloroethane	<0.00207	0.00207	0.000300	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	
1,1,2,2-Tetrachloroethane	<0.00207	0.00207	0.000670	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	
1,1,2-Trichloroethane	<0.00207	0.00207	0.000537	mg/Kg		11/26/13 10:30	11/26/13 15:31	
1,1-Dichloroethane	<0.00207	0.00207	0.000504		₩	11/26/13 10:30	11/26/13 15:31	
1.1-Dichloroethene	<0.00207	0.00207	0.000506		₩	11/26/13 10:30	11/26/13 15:31	
1,1-Dichloropropene	<0.00207	0.00207	0.000587			11/26/13 10:30	11/26/13 15:31	
1,2,3-Trichlorobenzene	<0.00207	0.00207	0.000439	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	
1,2,3-Trichloropropane	<0.00207	0.00207	0.000421	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	
1,2,4-Trichlorobenzene	<0.00207	0.00207	0.000251			11/26/13 10:30	11/26/13 15:31	
1,2,4-Trimethylbenzene	<0.00207	0.00207	0.000794		₩	11/26/13 10:30	11/26/13 15:31	
1,2-Dibromo-3-Chloropropane	<0.0207	0.0207	0.00207		₩	11/26/13 10:30	11/26/13 15:31	
1,2-Dichlorobenzene	<0.00207	0.00207	0.000323			11/26/13 10:30	11/26/13 15:31	
1,2-Dichloroethane	<0.00207	0.00207	0.000207	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	
1,2-Dichloropropane	<0.00207	0.00207	0.00207	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	
1,3,5-Trimethylbenzene	<0.00207	0.00207	0.000266	mg/Kg		11/26/13 10:30	11/26/13 15:31	
1,3-Dichlorobenzene	<0.00207	0.00207	0.000212		₽	11/26/13 10:30	11/26/13 15:31	
1,3-Dichloropropane	<0.00207	0.00207	0.000212	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	
1,4-Dichlorobenzene	<0.00207	0.00207				11/26/13 10:30	11/26/13 15:31	
1,4-Dioxane	<0.207	0.207	0.0199	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	
2,2-Dichloropropane	<0.00207	0.00207	0.000703			11/26/13 10:30	11/26/13 15:31	
2-Butanone (MEK)	<0.0207	0.00207	0.000703		· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 15:31	
2-Chlorotoluene	<0.00207	0.0207	0.00131	mg/Kg		11/26/13 10:30	11/26/13 15:31	
2-Chlorotoluene 2-Hexanone	<0.0207	0.00207	0.000271			11/26/13 10:30	11/26/13 15:31	
4-Chlorotoluene	<0.00207	0.00207	0.00207		· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 15:31	
4-Isopropyltoluene	<0.00207	0.00207	0.000488	mg/Kg		11/26/13 10:30	11/26/13 15:31	
	<0.0207	0.00207	0.000331	mg/Kg		11/26/13 10:30	11/26/13 15:31	
4-Methyl-2-pentanone (MIBK)	<0.207	0.0207		mg/Kg		11/26/13 10:30	11/26/13 15:31	
Acetone Benzene	<0.00207	0.207	0.00348 0.000203			11/26/13 10:30	11/26/13 15:31	
Bromobenzene	<0.00207	0.00207	0.000203	mg/Kg mg/Kg		11/26/13 10:30	11/26/13 15:31	
	<0.00207		0.000727			11/26/13 10:30	11/26/13 15:31	
Bromoform	<0.00207	0.00207		5 5	₩			
Bromomethane		0.00413	0.000372		₩	11/26/13 10:30	11/26/13 15:31	
Carbon disulfide	<0.00207	0.00207	0.00207		· · · · · · *	11/26/13 10:30	11/26/13 15:31	
Carbon tetrachloride	<0.00207	0.00207	0.000400		₩	11/26/13 10:30	11/26/13 15:31	
Chlorobenzene	<0.00207 <0.00207	0.00207	0.000546		₩	11/26/13 10:30	11/26/13 15:31	
Chlorodihane		0.00207	0.000298		<del></del>	11/26/13 10:30	11/26/13 15:31	
Chlorodibromomethane	<0.00207	0.00207	0.000529			11/26/13 10:30	11/26/13 15:31	
Chloroethane	<0.00413	0.00413	0.000934		₩	11/26/13 10:30	11/26/13 15:31	
Chloroform	<0.00207	0.00207	0.000255		<u></u>	11/26/13 10:30	11/26/13 15:31	
Chloromethane	<0.00413	0.00413	0.000250		₽ **	11/26/13 10:30	11/26/13 15:31	
cis-1,2-Dichloroethene	<0.00207	0.00207	0.000529		₽ **	11/26/13 10:30	11/26/13 15:31	
cis-1,3-Dichloropropene	<0.00207	0.00207	0.000595		<sub>.</sub>	11/26/13 10:30	11/26/13 15:31	
Dichlorobromomethane	<0.00207	0.00207	0.000554	0 0	₩	11/26/13 10:30	11/26/13 15:31	
Dichlorodifluoromethane	<0.00413	0.00413	0.000341		*	11/26/13 10:30	11/26/13 15:31	
Ethyl ether	<0.00207	0.00207	0.00174		<u></u>	11/26/13 10:30	11/26/13 15:31	
Ethylbenzene	0.000905 J	0.00207	0.000285		₩.	11/26/13 10:30	11/26/13 15:31	
Ethylene Dibromide	<0.00207	0.00207	0.000531			11/26/13 10:30	11/26/13 15:31	
Hexachlorobutadiene	<0.00207	0.00207	0.000484	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-55 (0-0.25)

Date Collected: 11/22/13 10:05 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50846-14

Matrix: Sol	id
Percent Solids: 92	.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<0.00207		0.00207	0.000623	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
Methyl tert-butyl ether	<0.00207		0.00207	0.000406	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
Methylene Chloride	<0.00207		0.00207	0.00190	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
m-Xylene & p-Xylene	0.00368	J	0.00413	0.000694	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
Naphthalene	<0.0207		0.0207	0.000554	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
n-Butylbenzene	<0.00207		0.00207	0.000360	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
N-Propylbenzene	<0.00207		0.00207	0.000331	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
o-Xylene	0.00148	J	0.00207	0.000540	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
sec-Butylbenzene	<0.00207		0.00207	0.000360	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
Styrene	<0.00207		0.00207	0.000207	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
Tert-amyl methyl ether	<0.00207		0.00207	0.00106	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
Tert-butyl ethyl ether	<0.00207		0.00207	0.00182	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
tert-Butylbenzene	<0.00207		0.00207	0.000430	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
Tetrachloroethene	<0.00207		0.00207	0.000555	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
Tetrahydrofuran	<0.0413		0.0413	0.00380	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
Toluene	<0.00207		0.00207	0.000312	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
trans-1,2-Dichloroethene	<0.00207		0.00207	0.000427	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
trans-1,3-Dichloropropene	<0.00207		0.00207	0.00182	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
Trichloroethene	<0.00207		0.00207	0.000909	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
Trichlorofluoromethane	<0.00413		0.00413	0.000391	mg/Kg	₩	11/26/13 10:30	11/26/13 15:31	1
Vinyl chloride	<0.00207		0.00207	0.000504	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
Dibromomethane	<0.00207		0.00207	0.000426	mg/Kg	₽	11/26/13 10:30	11/26/13 15:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130				11/26/13 10:30	11/26/13 15:31	1

70 - 130

70 - 130

Client Sample ID: WCSS-57 (0-0.25)

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Date Collected: 11/22/13 10:15 Date Received: 11/26/13 02:00

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Lab Sample ID: 480-50846-15

11/26/13 10:30 11/26/13 15:31

11/26/13 15:31

11/26/13 10:30

**Matrix: Solid** Percent Solids: 87.8

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00268	0.00268	0.000535	mg/Kg	*	11/26/13 10:30	11/26/13 15:56	1
1,1,1-Trichloroethane	<0.00268	0.00268	0.000389	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,1,2,2-Tetrachloroethane	<0.00268	0.00268	0.000869	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,1,2-Trichloroethane	<0.00268	0.00268	0.000696	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,1-Dichloroethane	<0.00268	0.00268	0.000653	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,1-Dichloroethene	<0.00268	0.00268	0.000655	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,1-Dichloropropene	<0.00268	0.00268	0.000760	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,2,3-Trichlorobenzene	<0.00268	0.00268	0.000569	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,2,3-Trichloropropane	<0.00268	0.00268	0.000545	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,2,4-Trichlorobenzene	<0.00268	0.00268	0.000326	mg/Kg	\$	11/26/13 10:30	11/26/13 15:56	1
1,2,4-Trimethylbenzene	<0.00268	0.00268	0.00103	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,2-Dibromo-3-Chloropropane	<0.0268	0.0268	0.00268	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,2-Dichlorobenzene	<0.00268	0.00268	0.000419	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,2-Dichloroethane	<0.00268	0.00268	0.000269	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,2-Dichloropropane	<0.00268	0.00268	0.00268	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
1,3,5-Trimethylbenzene	<0.00268	0.00268	0.000345	mg/Kg	\$	11/26/13 10:30	11/26/13 15:56	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Matrix: Solid

Client Sample ID: WCSS-57 (0-0.25) Lab Sample ID: 480-50846-15

Date Collected: 11/22/13 10:15 Date Received: 11/26/13 02:00 Percent Solids: 87.8

Method: 8260C - Volatile Orgar Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,3-Dichlorobenzene	<0.00268		0.00268	0.000275	mg/Kg	— <del>~</del>	11/26/13 10:30	11/26/13 15:56	DII F
	<0.00268		0.00268	0.000275	mg/Kg		11/26/13 10:30	11/26/13 15:56	
1,3-Dichloropropane	<0.00268					· · · · · · · · · · · · · · · · · · ·			
I,4-Dichlorobenzene			0.00268	0.000750	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
1,4-Dioxane	<0.268		0.268	0.0258	mg/Kg	~ \$	11/26/13 10:30	11/26/13 15:56	
2,2-Dichloropropane	<0.00268		0.00268	0.000910	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 15:56	
2-Butanone (MEK)	<0.0268	•	0.0268	0.00196			11/26/13 10:30	11/26/13 15:56	
2-Chlorotoluene	<0.00268		0.00268	0.000351	mg/Kg	φ.	11/26/13 10:30	11/26/13 15:56	
2-Hexanone	<0.0268		0.0268	0.00268	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 15:56	
4-Chlorotoluene	<0.00268		0.00268	0.000632		₽.	11/26/13 10:30	11/26/13 15:56	
1-Isopropyltoluene	<0.00268		0.00268	0.000429	mg/Kg	₽-	11/26/13 10:30	11/26/13 15:56	
4-Methyl-2-pentanone (MIBK)	<0.0268		0.0268	0.00176	mg/Kg		11/26/13 10:30	11/26/13 15:56	
Acetone	<0.268		0.268	0.00451	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Benzene	<0.00268		0.00268	0.000262	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Bromobenzene	<0.00268		0.00268	0.000942	mg/Kg	<b>#</b>	11/26/13 10:30	11/26/13 15:56	
Bromoform	<0.00268		0.00268	0.00268	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
Bromomethane	<0.00535		0.00535	0.000482	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Carbon disulfide	<0.00268		0.00268	0.00268	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Carbon tetrachloride	<0.00268		0.00268	0.000518	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
Chlorobenzene	<0.00268		0.00268	0.000707	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
Chlorobromomethane	<0.00268		0.00268	0.000387	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Chlorodibromomethane	<0.00268		0.00268	0.000685	mg/Kg		11/26/13 10:30	11/26/13 15:56	
Chloroethane	<0.00535		0.00535	0.00121	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
Chloroform	<0.00268		0.00268	0.000331	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Chloromethane	<0.00535		0.00535	0.000323	mg/Kg		11/26/13 10:30	11/26/13 15:56	
cis-1,2-Dichloroethene	<0.00268		0.00268	0.000685	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
cis-1,3-Dichloropropene	<0.00268		0.00268	0.000771	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
Dichlorobromomethane	<0.00268		0.00268	0.000718	mg/Kg		11/26/13 10:30	11/26/13 15:56	
Dichlorodifluoromethane	<0.00535		0.00535	0.000442	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Ethyl ether	<0.00268		0.00268	0.00225	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Ethylbenzene	0.00227		0.00268	0.000369	mg/Kg		11/26/13 10:30	11/26/13 15:56	
Ethylbenzene Ethylene Dibromide	<0.00227	_	0.00268	0.000688	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Hexachlorobutadiene	<0.00268		0.00268	0.000628		₩.	11/26/13 10:30	11/26/13 15:56	
	<0.00268				mg/Kg				
Isopropyl ether			0.00268	0.00268		₩	11/26/13 10:30	11/26/13 15:56	
Isopropylbenzene	<0.00268		0.00268	0.000807	mg/Kg		11/26/13 10:30	11/26/13 15:56	
Methyl tert-butyl ether	<0.00268		0.00268	0.000526		<u></u>	11/26/13 10:30	11/26/13 15:56	
Methylene Chloride	<0.00268		0.00268	0.00246		*	11/26/13 10:30	11/26/13 15:56	
m-Xylene & p-Xylene	0.00855		0.00535	0.000900		₩.	11/26/13 10:30	11/26/13 15:56	
Naphthalene	<0.0268		0.0268	0.000718		<u></u>	11/26/13 10:30	11/26/13 15:56	
n-Butylbenzene	<0.00268		0.00268	0.000466		₽.	11/26/13 10:30	11/26/13 15:56	
N-Propylbenzene	<0.00268		0.00268		mg/Kg	₽-	11/26/13 10:30	11/26/13 15:56	
o-Xylene	0.00339		0.00268	0.000699	mg/Kg		11/26/13 10:30	11/26/13 15:56	
sec-Butylbenzene	<0.00268		0.00268	0.000466	mg/Kg	*	11/26/13 10:30	11/26/13 15:56	
Styrene	<0.00268		0.00268	0.000268	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
Геrt-amyl methyl ether	<0.00268		0.00268	0.00137	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
ert-butyl ethyl ether	<0.00268		0.00268	0.00236	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
ert-Butylbenzene	<0.00268		0.00268	0.000557	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	
Tetrachloroethene	<0.00268		0.00268	0.000719	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	
Tetrahydrofuran	<0.0535		0.0535	0.00493	mg/Kg	ф.	11/26/13 10:30	11/26/13 15:56	
Foluene	0.0381		0.00268	0.000405		⇔	11/26/13 10:30	11/26/13 15:56	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 10:15

Date Received: 11/26/13 02:00

Client Sample ID: WCSS-57 (0-0.25)

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-15

Matrix: Solid

Percent Solids: 87.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.00268		0.00268	0.000553	mg/Kg	<del>-</del>	11/26/13 10:30	11/26/13 15:56	1
trans-1,3-Dichloropropene	<0.00268		0.00268	0.00236	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
Trichloroethene	<0.00268		0.00268	0.00118	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
Trichlorofluoromethane	< 0.00535		0.00535	0.000507	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
Vinyl chloride	<0.00268		0.00268	0.000653	mg/Kg	₽	11/26/13 10:30	11/26/13 15:56	1
Dibromomethane	<0.00268		0.00268	0.000552	mg/Kg	₩	11/26/13 10:30	11/26/13 15:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130				11/26/13 10:30	11/26/13 15:56	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130				11/26/13 10:30	11/26/13 15:56	1
4-Bromofluorobenzene (Surr)	99		70 - 130				11/26/13 10:30	11/26/13 15:56	1

Method: 8082 - Polychic	orinated Biphenyls (GC/	ECD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0376		0.0376	0.0239	mg/Kg	₩	11/29/13 07:58	12/03/13 17:21	1
PCB-1221	<0.0376		0.0376	0.0182	mg/Kg	₽	11/29/13 07:58	12/03/13 17:21	1
PCB-1232	<0.0376		0.0376	0.0159	mg/Kg	₽	11/29/13 07:58	12/03/13 17:21	1
PCB-1242	<0.0376		0.0376	0.0148	mg/Kg		11/29/13 07:58	12/03/13 17:21	1
PCB-1248	<0.0376		0.0376	0.0194	mg/Kg	₽	11/29/13 07:58	12/03/13 17:21	1
PCB-1254	<0.0376		0.0376	0.0194	mg/Kg	☼	11/29/13 07:58	12/03/13 17:21	1
PCB-1260	0.105		0.0376	0.0194	mg/Kg		11/29/13 07:58	12/03/13 17:21	1
PCB-1262	<0.0376		0.0376	0.0308	mg/Kg	☼	11/29/13 07:58	12/03/13 17:21	1
PCB-1268	<0.0376		0.0376	0.0159	mg/Kg	₩	11/29/13 07:58	12/03/13 17:21	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	46	30 - 150	11/29/13 07:58	12/03/13 17:21	1
Tetrachloro-m-xylene	44	30 - 150	11/29/13 07:58	12/03/13 17:21	1
DCB Decachlorobiphenyl	79	30 - 150	11/29/13 07:58	12/03/13 17:21	1
DCB Decachlorobiphenyl	38	30 - 150	11/29/13 07:58	12/03/13 17:21	1

Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.528	0.528	0.0855	mg/Kg	₩	11/26/13 10:37	11/29/13 17:22	1
Acenaphthylene	<0.528	0.528	0.0950	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Anthracene	<0.528	0.528	0.100	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Benzo[a]anthracene	0.839	0.528	0.0803	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Benzo[a]pyrene	1.38	0.528	0.0760	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Benzo[b]fluoranthene	2.17	0.528	0.0750	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Benzo[g,h,i]perylene	<0.528	0.528	0.0898	mg/Kg	<b>\$</b>	11/26/13 10:37	11/29/13 17:22	1
Benzo[k]fluoranthene	0.798	0.528	0.0771	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
2-Methylnaphthalene	<0.528	0.528	0.103	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Chrysene	1.38	0.528	0.0940	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Dibenz(a,h)anthracene	<0.528	0.528	0.0739	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Fluoranthene	1.92	0.528	0.0929	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Fluorene	<0.528	0.528	0.106	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Indeno[1,2,3-cd]pyrene	<0.528	0.528	0.0771	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
Naphthalene	<0.528	0.528	0.0887	mg/Kg	₩	11/26/13 10:37	11/29/13 17:22	1
Phenanthrene	0.677	0.528	0.106	mg/Kg	₩	11/26/13 10:37	11/29/13 17:22	1
Pyrene	1.76	0.528	0.0961	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1
C11-C22 Aromatics (unadjusted)	53.5	5.28	2.11	mg/Kg	₽	11/26/13 10:37	11/29/13 17:22	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 10:15

Date Received: 11/26/13 02:00

Client Sample ID: WCSS-57 (0-0.25)

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-15

Matrix: Solid

Percent Solids: 87.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C19-C36 Aliphatics	59.0		5.28	2.11	mg/Kg	₩	11/26/13 10:37	11/29/13 17:22	1
C9-C18 Aliphatics	<5.28		5.28	2.11	mg/Kg	₩	11/26/13 10:37	11/29/13 17:22	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	42.6		5.70	5.70	mg/Kg	₩		12/03/13 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	41		40 - 140				11/26/13 10:37	11/29/13 17:22	1
2-Bromonaphthalene	71		40 - 140				11/26/13 10:37	11/29/13 17:22	1
2-Fluorobiphenyl	89		40 - 140				11/26/13 10:37	11/29/13 17:22	1
o-Terphenyl	37	X	40 - 140				11/26/13 10:37	11/29/13 17:22	1

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.537		0.537	0.215	mg/Kg	<del></del>	11/26/13 10:00	12/01/13 01:29	1
2.38		1.07	0.430	mg/Kg	₽	11/26/13 10:00	12/02/13 17:47	1
22.9		0.537	0.118	mg/Kg	₽	11/26/13 10:00	12/01/13 01:29	1
0.186	J	0.215	0.0301	mg/Kg	<b>\$</b>	11/26/13 10:00	12/01/13 01:29	1
0.343		0.215	0.0322	mg/Kg	₩	11/26/13 10:00	12/01/13 01:29	1
10.3		0.537	0.215	mg/Kg	₽	11/26/13 10:00	12/01/13 01:29	1
12.0		1.07	0.247	mg/Kg	₽	11/26/13 10:00	12/01/13 01:29	1
<1.07		1.07	0.322	mg/Kg	₩	11/26/13 10:00	12/02/13 17:47	1
27.9		0.537	0.118	mg/Kg	₽	11/26/13 10:00	12/01/13 01:29	1
79.6	В	2.68	0.164	mg/Kg	₩	11/26/13 10:00	12/01/13 01:29	1
48.0		0.537	0.258	mg/Kg	₩	11/26/13 10:00	12/01/13 01:29	1
<0.537		0.537	0.430	mg/Kg	☼	11/26/13 10:00	12/02/13 17:47	1
<0.537	^	0.537	0.430	mg/Kg	₩.	11/26/13 10:00	12/02/13 17:47	1
	<0.537 2.38 22.9 0.186 0.343 10.3 12.0 <1.07 27.9 79.6 48.0 <0.537	2.38 22.9 0.186 J 0.343 10.3 12.0 <1.07 27.9 79.6 B 48.0	<0.537	<0.537	<0.537	<0.537	<0.537         0.537         0.215         mg/Kg         11/26/13 10:00           2.38         1.07         0.430         mg/Kg         11/26/13 10:00           22.9         0.537         0.118         mg/Kg         11/26/13 10:00           0.186         J         0.215         0.0301         mg/Kg         11/26/13 10:00           0.343         0.215         0.0322         mg/Kg         11/26/13 10:00           10.3         0.537         0.215         mg/Kg         11/26/13 10:00           12.0         1.07         0.247         mg/Kg         11/26/13 10:00           <1.07         1.07         0.322         mg/Kg         11/26/13 10:00           27.9         0.537         0.118         mg/Kg         11/26/13 10:00           79.6         B         2.68         0.164         mg/Kg         11/26/13 10:00           48.0         0.537         0.258         mg/Kg         11/26/13 10:00           <0.537         0.537         0.430         mg/Kg         11/26/13 10:00	<0.537         0.537         0.215 mg/Kg         11/26/13 10:00         12/01/13 01:29           2.38         1.07         0.430 mg/Kg         11/26/13 10:00         12/02/13 17:47           22.9         0.537         0.118 mg/Kg         11/26/13 10:00         12/01/13 01:29           0.186 J         0.215         0.0301 mg/Kg         11/26/13 10:00         12/01/13 01:29           0.343         0.215         0.0322 mg/Kg         11/26/13 10:00         12/01/13 01:29           10.3         0.537         0.215 mg/Kg         11/26/13 10:00         12/01/13 01:29           12.0         1.07         0.247 mg/Kg         11/26/13 10:00         12/01/13 01:29           <1.07         1.07         0.322 mg/Kg         11/26/13 10:00         12/01/13 01:29           <1.07         0.537         0.118 mg/Kg         11/26/13 10:00         12/01/13 01:29           <1.08         0.537         0.118 mg/Kg         11/26/13 10:00         12/01/13 01:29           48.0         0.537         0.258 mg/Kg         11/26/13 10:00         12/01/13 01:29           <0.537         0.537         0.258 mg/Kg         11/26/13 10:00         12/01/13 01:29           <0.537         0.537         0.258 mg/Kg         11/26/13 10:00         12/01/13 01:29

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.109	J	0.111	0.00901	mg/Kg	<del>\</del>	11/29/13 08:40	11/29/13 15:55	1

Client Sample ID: WCSS-62 (0-0.25) Lab Sample ID: 480-50846-16

Date Collected: 11/22/13 10:35 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 90.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.362		0.362	0.230	mg/Kg	<u> </u>	11/29/13 07:58	12/03/13 17:53	10
PCB-1221	<0.362		0.362	0.175	mg/Kg	₽	11/29/13 07:58	12/03/13 17:53	10
PCB-1232	<0.362		0.362	0.153	mg/Kg	₽	11/29/13 07:58	12/03/13 17:53	10
PCB-1242	<0.362		0.362	0.142	mg/Kg	<b>\$</b>	11/29/13 07:58	12/03/13 17:53	10
PCB-1248	<0.362		0.362	0.186	mg/Kg	₽	11/29/13 07:58	12/03/13 17:53	10
PCB-1254	<0.362		0.362	0.186	mg/Kg	₩	11/29/13 07:58	12/03/13 17:53	10
PCB-1260	3.24		0.362	0.186	mg/Kg	₽	11/29/13 07:58	12/03/13 17:53	10
PCB-1262	<0.362		0.362	0.296	mg/Kg	₩	11/29/13 07:58	12/03/13 17:53	10
PCB-1268	<0.362		0.362	0.153	mg/Kg	₽	11/29/13 07:58	12/03/13 17:53	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				11/29/13 07:58	12/03/13 17:53	10
Tetrachloro-m-xylene	0	X	30 - 150				11/29/13 07:58	12/03/13 17:53	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 11/26/13 02:00

Client Sample ID: WCSS-62 (0-0.25)

Lab Sample ID: 480-50846-16 Date Collected: 11/22/13 10:35 Matrix: Solid

Percent Solids: 90.6

Lab Sample ID: 480-50846-17

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	213	X	30 - 150	11/29/13 07:58	12/03/13 17:53	10
DCB Decachlorobiphenyl	149		30 - 150	11/29/13 07:58	12/03/13 17:53	10

Method: 6010 - Metals (IC	CP)							
Analyte	Result Qu	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.605	0.605	0.242	mg/Kg	₩	11/26/13 10:00	12/01/13 01:32	1
Arsenic	10.2	1.21	0.484	mg/Kg	₽	11/26/13 10:00	12/02/13 17:49	1
Barium	179	0.605	0.133	mg/Kg	₽	11/26/13 10:00	12/01/13 01:32	1
Beryllium	0.477	0.242	0.0339	mg/Kg	₽	11/26/13 10:00	12/01/13 01:32	1
Cadmium	7.89	0.242	0.0363	mg/Kg	₽	11/26/13 10:00	12/01/13 01:32	1
Chromium	17.9	0.605	0.242	mg/Kg	₽	11/26/13 10:00	12/01/13 01:32	1
Nickel	25.7	1.21	0.278	mg/Kg	\$	11/26/13 10:00	12/01/13 01:32	1
Thallium	<1.21	1.21	0.363	mg/Kg	₽	11/26/13 10:00	12/02/13 17:49	1
Vanadium	17.7	0.605	0.133	mg/Kg	₽	11/26/13 10:00	12/01/13 01:32	1
Zinc	895 B	3.02	0.185	mg/Kg	\$	11/26/13 10:00	12/01/13 01:32	1
Lead	662	0.605	0.290	mg/Kg	₽	11/26/13 10:00	12/01/13 01:32	1
Selenium	0.904	0.605	0.484	mg/Kg	₽	11/26/13 10:00	12/02/13 17:49	1
Antimony	5.10 ^	0.605	0.484	mg/Kg		11/26/13 10:00	12/02/13 17:49	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.43		0.559	0.0453	mg/Kg	₩	11/29/13 08:40	11/29/13 16:38	5

Client Sample ID: WCSS-63 (0-0.25)

Date Collected: 11/22/13 10:40 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 51.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.31		1.31	0.832	mg/Kg	\$	11/29/13 07:58	12/03/13 18:09	20
PCB-1221	<1.31		1.31	0.634	mg/Kg	₽	11/29/13 07:58	12/03/13 18:09	20
PCB-1232	<1.31		1.31	0.555	mg/Kg	₩	11/29/13 07:58	12/03/13 18:09	20
PCB-1242	<1.31		1.31	0.515	mg/Kg	₽	11/29/13 07:58	12/03/13 18:09	20
PCB-1248	<1.31		1.31	0.674	mg/Kg	₩	11/29/13 07:58	12/03/13 18:09	20
PCB-1254	<1.31		1.31	0.674	mg/Kg	₽	11/29/13 07:58	12/03/13 18:09	20
PCB-1260	7.67		1.31	0.674	mg/Kg	₽	11/29/13 07:58	12/03/13 18:09	20
PCB-1262	<1.31		1.31	1.07	mg/Kg	₽	11/29/13 07:58	12/03/13 18:09	20
PCB-1268	<1.31		1.31	0.555	mg/Kg	₽	11/29/13 07:58	12/03/13 18:09	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	P	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150	11/2	29/13 07:58	12/03/13 18:09	20
Tetrachloro-m-xylene	0	X	30 - 150	11/2	29/13 07:58	12/03/13 18:09	20
DCB Decachlorobiphenyl	534	X	30 - 150	11/2	29/13 07:58	12/03/13 18:09	20
DCB Decachlorobiphenyl	226	X	30 - 150	11/2	29/13 07:58	12/03/13 18:09	20

Method:	6010 - I	Metals	(ICP)

Mictilion. 00 10 - Mictais (101 )									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.54		1.07	0.429	mg/Kg	<u></u>	11/26/13 10:00	12/01/13 01:34	1
Arsenic	32.0		2.15	0.858	mg/Kg	₽	11/26/13 10:00	12/02/13 17:52	1
Barium	317		1.07	0.236	mg/Kg	₩	11/26/13 10:00	12/01/13 01:34	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc TestAmerica Job ID: 480-50846-1 Project/Site: Quincy Inervale

Lab Sample ID: 480-50846-17

Matrix: Solid

Percent Solids: 51.1

Client Sample ID: WCSS-63 (0-0.25)

Date Collected: 11/22/13 10:40 Date Received: 11/26/13 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.433		0.429	0.0601	mg/Kg	₩	11/26/13 10:00	12/01/13 01:34	1
Cadmium	12.4		0.429	0.0644	mg/Kg	₽	11/26/13 10:00	12/01/13 01:34	1
Chromium	61.8		1.07	0.429	mg/Kg	₩	11/26/13 10:00	12/01/13 01:34	1
Nickel	57.4		2.15	0.493	mg/Kg	₽	11/26/13 10:00	12/01/13 01:34	1
Thallium	<2.15		2.15	0.644	mg/Kg	₩	11/26/13 10:00	12/02/13 17:52	1
Vanadium	31.3		1.07	0.236	mg/Kg	₽	11/26/13 10:00	12/01/13 01:34	1
Zinc	4150	В	5.36	0.328	mg/Kg	₽	11/26/13 10:00	12/01/13 01:34	1
Lead	2780		1.07	0.515	mg/Kg	₩	11/26/13 10:00	12/01/13 01:34	1
Selenium	2.28		1.07	0.858	mg/Kg	₽	11/26/13 10:00	12/02/13 17:52	1
Antimony	54.7	^	1.07	0.858	mg/Kg	\$	11/26/13 10:00	12/02/13 17:52	1

Method: 7471A - Mercury (CVAA) Dil Fac Analyte Result Qualifier RLMDL Unit Prepared Analyzed ₩ 0.199 11/29/13 08:40 11/29/13 16:02 Mercury 0.799 0.0161 mg/Kg

Client Sample ID: WCSS-72(0-0.25)

Date Collected: 11/22/13 10:50 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50846-18

**Matrix: Solid** Percent Solids: 90.7

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.576		0.576	0.230	mg/Kg	<del>-</del>	11/26/13 10:00	12/01/13 01:37	1
Arsenic	3.15		1.15	0.461	mg/Kg	₽	11/26/13 10:00	12/02/13 18:05	1
Barium	29.0		0.576	0.127	mg/Kg	₽	11/26/13 10:00	12/01/13 01:37	1
Beryllium	0.195	J	0.230	0.0322	mg/Kg	\$	11/26/13 10:00	12/01/13 01:37	1
Cadmium	0.315		0.230	0.0345	mg/Kg	₩	11/26/13 10:00	12/01/13 01:37	1
Chromium	7.09		0.576	0.230	mg/Kg	₩	11/26/13 10:00	12/01/13 01:37	1
Nickel	6.10		1.15	0.265	mg/Kg		11/26/13 10:00	12/01/13 01:37	1
Thallium	<1.15		1.15	0.345	mg/Kg	₩	11/26/13 10:00	12/02/13 18:05	1
Vanadium	9.24		0.576	0.127	mg/Kg	₩	11/26/13 10:00	12/01/13 01:37	1
Zinc	50.8	В	2.88	0.176	mg/Kg		11/26/13 10:00	12/01/13 01:37	1
Lead	13.3		0.576	0.276	mg/Kg	₩	11/26/13 10:00	12/01/13 01:37	1
Selenium	<0.576		0.576	0.461	mg/Kg	₽	11/26/13 10:00	12/02/13 18:05	1
Antimony	<0.576	٨	0.576	0.461	mg/Kg	\$	11/26/13 10:00	12/02/13 18:05	1

Method: 7471A - Mercury (CVAA) Analyte Result Qualifier RL MDL Unit Dil Fac Prepared Analyzed ₩ Mercury 0.0164 J 0.111 0.00896 mg/Kg 11/29/13 08:40 11/29/13 16:04

Client Sample ID: WCEB-57 (0-0.25)

Date Collected: 11/22/13 11:15 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50846-19

Matrix: Water

Analyte	Result	Qualifier	RL M	DL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.242	0.2	42 0.09	967	ug/L		11/29/13 07:49	11/30/13 13:27	1
PCB-1221	<0.242	0.2	42 0.09	967	ug/L		11/29/13 07:49	11/30/13 13:27	1
PCB-1232	<0.242	0.2	42 0.09	967	ug/L		11/29/13 07:49	11/30/13 13:27	1
PCB-1242	<0.242	0.2	42 0.09	967	ug/L		11/29/13 07:49	11/30/13 13:27	1
PCB-1248	<0.242	0.2	42 0.09	967	ug/L		11/29/13 07:49	11/30/13 13:27	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Client Sample ID: WCEB-57 (0-0.25)

Lab Sample ID: 480-50846-19 Date Collected: 11/22/13 11:15

Matrix: Water

Date Received: 11/26/13 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	<0.242		0.242	0.0967	ug/L		11/29/13 07:49	11/30/13 13:27	1
PCB-1260	<0.242		0.242	0.0967	ug/L		11/29/13 07:49	11/30/13 13:27	1
PCB-1262	<0.242		0.242	0.0967	ug/L		11/29/13 07:49	11/30/13 13:27	1
PCB-1268	<0.242		0.242	0.0967	ug/L		11/29/13 07:49	11/30/13 13:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		30 - 150				11/29/13 07:49	11/30/13 13:27	1
DCB Decachlorobiphenyl	66		30 - 150				11/29/13 07:49	11/30/13 13:27	1

Client Sample ID: TB-11222013 (1)

Lab Sample ID: 480-50846-20 Date Collected: 11/22/13 12:00

Matrix: Solid

Date Received: 11/26/13 02:00

Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.139	0.139	0.0278	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,1,1-Trichloroethane	<0.139	0.139	0.0202	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,1,2,2-Tetrachloroethane	<0.139	0.139	0.0451	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,1,2-Trichloroethane	<0.139	0.139	0.0361	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,1-Dichloroethane	<0.139	0.139	0.0339	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,1-Dichloroethene	<0.139	0.139	0.0340	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,1-Dichloropropene	<0.139	0.139	0.0394	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2,3-Trichlorobenzene	<0.139	0.139	0.0295	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2,3-Trichloropropane	<0.139	0.139	0.0283	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2,4-Trichlorobenzene	<0.139	0.139	0.0169	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2,4-Trimethylbenzene	<0.139	0.139	0.0533	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2-Dibromo-3-Chloropropane	<1.39	1.39	0.139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2-Dichlorobenzene	<0.139	0.139	0.0217	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2-Dichloroethane	<0.139	0.139	0.0139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,2-Dichloropropane	<0.139	0.139	0.139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,3,5-Trimethylbenzene	<0.139	0.139	0.0179	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,3-Dichlorobenzene	<0.139	0.139	0.0143	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,3-Dichloropropane	<0.139	0.139	0.0167	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,4-Dichlorobenzene	<0.139	0.139	0.0389	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
1,4-Dioxane	<13.9	13.9	1.34	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
2,2-Dichloropropane	<0.139	0.139	0.0472	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
2-Butanone (MEK)	<1.39 *	1.39	0.102	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
2-Chlorotoluene	<0.139	0.139	0.0182	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
2-Hexanone	<1.39	1.39	0.139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
4-Chlorotoluene	<0.139	0.139	0.0328	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
4-Isopropyltoluene	<0.139	0.139	0.0223	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
4-Methyl-2-pentanone (MIBK)	<1.39	1.39	0.0911	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Acetone	<13.9	13.9	0.234	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Benzene	<0.139	0.139	0.0136	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Bromobenzene	<0.139	0.139	0.0489	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Bromoform	<0.139	0.139	0.139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Bromomethane	<0.278	0.278	0.0250	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Carbon disulfide	<0.139	0.139	0.139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Carbon tetrachloride	<0.139	0.139	0.0269	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Chlorobenzene	<0.139	0.139	0.0367	mg/Kg		11/26/13 10:30	11/26/13 16:22	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Lab Sample ID: 480-50846-20

Matrix: Solid

Client Sample ID: TB-11222013 (1)

Date Collected: 11/22/13 12:00 Date Received: 11/26/13 02:00

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	<0.139		0.139	0.0201	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Chlorodibromomethane	<0.139		0.139	0.0356	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Chloroethane	<0.278		0.278	0.0628	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Chloroform	<0.139		0.139	0.0172	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Chloromethane	<0.278		0.278	0.0168	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
cis-1,2-Dichloroethene	<0.139		0.139	0.0356	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
cis-1,3-Dichloropropene	<0.139		0.139	0.0400	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Dichlorobromomethane	<0.139		0.139	0.0372	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Dichlorodifluoromethane	<0.278		0.278	0.0229	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Ethyl ether	<0.139		0.139	0.117	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Ethylbenzene	<0.139		0.139	0.0192	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Ethylene Dibromide	<0.139		0.139	0.0357	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Hexachlorobutadiene	<0.139		0.139	0.0326	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Isopropyl ether	<0.139		0.139	0.139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Isopropylbenzene	<0.139		0.139	0.0419	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Methyl tert-butyl ether	<0.139		0.139	0.0273	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Methylene Chloride	<0.139		0.139	0.128	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
m-Xylene & p-Xylene	<0.278		0.278	0.0467	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Naphthalene	<1.39		1.39	0.0372	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
n-Butylbenzene	<0.139		0.139	0.0242	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
N-Propylbenzene	<0.139		0.139	0.0222	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
o-Xylene	<0.139		0.139	0.0363	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
sec-Butylbenzene	<0.139		0.139	0.0242	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Styrene	<0.139		0.139	0.0139	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Tert-amyl methyl ether	<0.139		0.139	0.0711	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Tert-butyl ethyl ether	<0.139		0.139	0.122	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
tert-Butylbenzene	<0.139		0.139	0.0289	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Tetrachloroethene	<0.139		0.139	0.0373	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Tetrahydrofuran	<2.78		2.78	0.256	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Toluene	<0.139		0.139	0.0210	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
trans-1,2-Dichloroethene	<0.139		0.139	0.0287	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
trans-1,3-Dichloropropene	<0.139		0.139	0.122	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Trichloroethene	<0.139		0.139	0.0611	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Trichlorofluoromethane	<0.278		0.278	0.0263	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Vinyl chloride	<0.139		0.139	0.0339	mg/Kg		11/26/13 10:30	11/26/13 16:22	1
Dibromomethane	<0.139		0.139	0.0286			11/26/13 10:30	11/26/13 16:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130				11/26/13 10:30	11/26/13 16:22	1

12/12/2013

11/26/13 10:30 11/26/13 16:22

11/26/13 16:22

11/26/13 10:30

70 - 130

70 - 130

96

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

_				Percent Su
		TOL	12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
480-50846-13	WCSS-56 (0-0.25)	101	107	96
480-50846-14	WCSS-55 (0-0.25)	97	103	96
480-50846-15	WCSS-57 (0-0.25)	98	103	99
480-50846-20	TB-11222013 (1)	96	96	94
LCS 480-154424/4	Lab Control Sample	97	101	99
LCSD 480-154424/5	Lab Control Sample Dup	96	98	99
MB 480-154424/6	Method Blank	96	97	95
Surrogate Legend				

#### Surrogate Legend

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid Prep Type: Total/NA

				Percent Sui	rogate Recovery (Acc	eptance Limits)
		TCX1	TCX2	DCB1	DCB2	
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)	
480-50846-1	WCSS-61 (0-0.25)	77	73	76	65	
480-50846-2	WCSS-47 (0-0.25)	117	94	297 X	78	
480-50846-3	WCSS-60 (0-0.25)	81	83	117	77	
480-50846-4	WCSS-59 (0-0.25)	33	31	30	24 X	
480-50846-5	WCSS-54 (0-0.25)	67	63	0 X	0 X	
480-50846-6	WCSS-53 (0-0.25)	72	65	0 X	0 X	
480-50846-7	WCSS-52 (0-0.25)	0 X	0 X	0 X	0 X	
480-50846-8	WCSS-51 (0-0.25)	0 X	0 X	0 X	0 X	
480-50846-9	WCSS-49 (0-0.25)	0 X	0 X	0 X	0 X	
480-50846-11	WCSS-58 (0-0.25)	75	74	103	74	
480-50846-12	WCSS-958 (0-0.25)	69	70	111	66	
480-50846-15	WCSS-57 (0-0.25)	46	44	79	38	
480-50846-16	WCSS-62 (0-0.25)	0 X	0 X	213 X	149	
480-50846-17	WCSS-63 (0-0.25)	0 X	0 X	534 X	226 X	
LCS 240-111692/24-A	Lab Control Sample	82	109	88	78	
LCS 240-112062/24-A	Lab Control Sample	98	96	80	86	
LCSD 240-111692/25-A	Lab Control Sample Dup	89	114	75	67	
LCSD 240-112062/25-A	Lab Control Sample Dup	83	76	86	78	
MB 240-111692/23-A	Method Blank	76	85	80	82	
MB 240-112062/23-A	Method Blank	65	66	96	85	

#### **Surrogate Legend**

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

# **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		TCX2	DCB2	
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	
480-50846-19	WCEB-57 (0-0.25)	93	66	
_CS 480-154839/2-A	Lab Control Sample	84	74	
CSD 480-154839/3-A	Lab Control Sample Dup	90	52	
MB 480-154839/1-A	Method Blank	92	72	

TCX = Tetrachloro-m-xylene DCB = DCB Decachlorobiphenyl

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rogate Red
		1COD2	2BN1	FBP1	OTPH1
Lab Sample ID	Client Sample ID	(40-140)	(40-140)	(40-140)	(40-140)
480-50846-15	WCSS-57 (0-0.25)	41	71	89	37 X
LCS 480-154450/2-B	Lab Control Sample	74	66	83	68
LCSD 480-154450/3-B	Lab Control Sample Dup	72	74	89	66
MB 480-154450/1-B	Method Blank	80	82	96	75

Surrogate Legend

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

# **QC Sample Results**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Lab Sample ID: MB 480-154424/6

Client Sample ID: Method Blank Prep Type: Total/NA

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	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00250		0.00250	0.000500	mg/Kg			11/26/13 12:23	
1,1,1-Trichloroethane	<0.00250		0.00250	0.000363	mg/Kg			11/26/13 12:23	
1,1,2,2-Tetrachloroethane	<0.00250		0.00250	0.000811	mg/Kg			11/26/13 12:23	
1,1,2-Trichloroethane	<0.00250		0.00250	0.000650	mg/Kg			11/26/13 12:23	
1,1-Dichloroethane	<0.00250		0.00250	0.000610	mg/Kg			11/26/13 12:23	
1,1-Dichloroethene	<0.00250		0.00250	0.000612	mg/Kg			11/26/13 12:23	
1,1-Dichloropropene	<0.00250		0.00250	0.000710	mg/Kg			11/26/13 12:23	
1,2,3-Trichlorobenzene	<0.00250		0.00250	0.000531	mg/Kg			11/26/13 12:23	
1,2,3-Trichloropropane	<0.00250		0.00250	0.000509	mg/Kg			11/26/13 12:23	
1,2,4-Trichlorobenzene	<0.00250		0.00250	0.000304	mg/Kg			11/26/13 12:23	
1,2,4-Trimethylbenzene	<0.00250		0.00250	0.000960	mg/Kg			11/26/13 12:23	
1,2-Dibromo-3-Chloropropane	<0.0250		0.0250	0.00250	mg/Kg			11/26/13 12:23	
1,2-Dichlorobenzene	<0.00250		0.00250	0.000391	mg/Kg			11/26/13 12:23	
1,2-Dichloroethane	<0.00250		0.00250	0.000251	mg/Kg			11/26/13 12:23	
1,2-Dichloropropane	<0.00250		0.00250	0.00250	mg/Kg			11/26/13 12:23	
1,3,5-Trimethylbenzene	<0.00250		0.00250	0.000322	mg/Kg			11/26/13 12:23	
1,3-Dichlorobenzene	< 0.00250		0.00250	0.000257	mg/Kg			11/26/13 12:23	
1,3-Dichloropropane	< 0.00250		0.00250	0.000300	mg/Kg			11/26/13 12:23	
1,4-Dichlorobenzene	<0.00250		0.00250	0.000700	mg/Kg			11/26/13 12:23	
1,4-Dioxane	<0.250		0.250	0.0241	mg/Kg			11/26/13 12:23	
2,2-Dichloropropane	<0.00250		0.00250	0.000850	mg/Kg			11/26/13 12:23	
2-Butanone (MEK)	<0.0250		0.0250	0.00183	mg/Kg			11/26/13 12:23	
2-Chlorotoluene	<0.00250		0.00250	0.000328	mg/Kg			11/26/13 12:23	
2-Hexanone	<0.0250		0.0250	0.00250	mg/Kg			11/26/13 12:23	
4-Chlorotoluene	<0.00250		0.00250	0.000590				11/26/13 12:23	· · · · · · .
4-Isopropyltoluene	<0.00250		0.00250	0.000401	mg/Kg			11/26/13 12:23	
4-Methyl-2-pentanone (MIBK)	<0.0250		0.0250	0.00164	mg/Kg			11/26/13 12:23	
Acetone	<0.250		0.250	0.00421	mg/Kg			11/26/13 12:23	· · · · · · .
Benzene	< 0.00250		0.00250	0.000245	mg/Kg			11/26/13 12:23	
Bromobenzene	<0.00250		0.00250	0.000880	mg/Kg			11/26/13 12:23	
Bromoform	<0.00250		0.00250	0.00250	mg/Kg			11/26/13 12:23	· · · · · · .
Bromomethane	<0.00500		0.00500					11/26/13 12:23	
Carbon disulfide	<0.00250		0.00250	0.00250	mg/Kg			11/26/13 12:23	
Carbon tetrachloride	<0.00250		0.00250	0.000484				11/26/13 12:23	
Chlorobenzene	<0.00250		0.00250	0.000660				11/26/13 12:23	
Chlorobromomethane	<0.00250		0.00250	0.000361				11/26/13 12:23	
Chlorodibromomethane	<0.00250		0.00250	0.000640	mg/Kg			11/26/13 12:23	
Chloroethane	<0.00500		0.00500	0.00113				11/26/13 12:23	
Chloroform	<0.00250		0.00250	0.000309				11/26/13 12:23	
Chloromethane	<0.00500		0.00500	0.000302	mg/Kg			11/26/13 12:23	
cis-1,2-Dichloroethene	<0.00250		0.00250	0.000640				11/26/13 12:23	
cis-1,3-Dichloropropene	<0.00250		0.00250	0.000720				11/26/13 12:23	
Dichlorobromomethane	<0.00250		0.00250					11/26/13 12:23	· · · · · · .
Dichlorodifluoromethane	<0.00500		0.00500	0.000413				11/26/13 12:23	
Ethyl ether	<0.00250		0.00250	0.00210				11/26/13 12:23	
Ethylbenzene	<0.00250		0.00250	0.000345				11/26/13 12:23	
Ethylene Dibromide	<0.00250		0.00250	0.000642				11/26/13 12:23	
Hexachlorobutadiene	<0.00250		0.00250	0.000586				11/26/13 12:23	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 480-154424/6

**Matrix: Solid** 

Analysis Batch: 154424

Client Sample ID: Method Blank

Prep Type: Total/NA

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<0.00250		0.00250	0.00250	mg/Kg			11/26/13 12:23	1
Isopropylbenzene	<0.00250		0.00250	0.000754	mg/Kg			11/26/13 12:23	1
Methyl tert-butyl ether	<0.00250		0.00250	0.000491	mg/Kg			11/26/13 12:23	1
Methylene Chloride	<0.00250		0.00250	0.00230	mg/Kg			11/26/13 12:23	1
m-Xylene & p-Xylene	<0.00500		0.00500	0.000840	mg/Kg			11/26/13 12:23	1
Naphthalene	<0.0250		0.0250	0.000670	mg/Kg			11/26/13 12:23	1
n-Butylbenzene	<0.00250		0.00250	0.000435	mg/Kg			11/26/13 12:23	1
N-Propylbenzene	<0.00250		0.00250	0.000400	mg/Kg			11/26/13 12:23	1
o-Xylene	<0.00250		0.00250	0.000653	mg/Kg			11/26/13 12:23	1
sec-Butylbenzene	<0.00250		0.00250	0.000435	mg/Kg			11/26/13 12:23	1
Styrene	<0.00250		0.00250	0.000250	mg/Kg			11/26/13 12:23	1
Tert-amyl methyl ether	<0.00250		0.00250	0.00128	mg/Kg			11/26/13 12:23	1
Tert-butyl ethyl ether	<0.00250		0.00250	0.00220	mg/Kg			11/26/13 12:23	1
tert-Butylbenzene	<0.00250		0.00250	0.000520	mg/Kg			11/26/13 12:23	1
Tetrachloroethene	<0.00250		0.00250	0.000671	mg/Kg			11/26/13 12:23	1
Tetrahydrofuran	<0.0500		0.0500	0.00460	mg/Kg			11/26/13 12:23	1
Toluene	<0.00250		0.00250	0.000378	mg/Kg			11/26/13 12:23	1
trans-1,2-Dichloroethene	<0.00250		0.00250	0.000516	mg/Kg			11/26/13 12:23	1
trans-1,3-Dichloropropene	<0.00250		0.00250	0.00220	mg/Kg			11/26/13 12:23	1
Trichloroethene	<0.00250		0.00250	0.00110	mg/Kg			11/26/13 12:23	1
Trichlorofluoromethane	<0.00500		0.00500	0.000473	mg/Kg			11/26/13 12:23	1
Vinyl chloride	<0.00250		0.00250	0.000610	mg/Kg			11/26/13 12:23	1
Dibromomethane	<0.00250		0.00250	0.000515	mg/Kg			11/26/13 12:23	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130		11/26/13 12:23	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		11/26/13 12:23	1
4-Bromofluorobenzene (Surr)	95		70 - 130		11/26/13 12:23	1

Lab Sample ID: LCS 480-154424/4

**Matrix: Solid** 

Analysis Batch: 154424

Client Sample ID:	Lab Control Sample
	Prep Type: Total/NA

•	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	0.0500	0.04851		mg/Kg		97	70 - 130
1,1,1-Trichloroethane	0.0500	0.04533		mg/Kg		91	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.05319		mg/Kg		106	70 - 130
1,1,2-Trichloroethane	0.0500	0.05063		mg/Kg		101	70 - 130
1,1-Dichloroethane	0.0500	0.04964		mg/Kg		99	70 _ 130
1,1-Dichloroethene	0.0500	0.04300		mg/Kg		86	70 - 130
1,1-Dichloropropene	0.0500	0.04672		mg/Kg		93	70 - 130
1,2,3-Trichlorobenzene	0.0500	0.04910		mg/Kg		98	70 - 130
1,2,3-Trichloropropane	0.0500	0.05322		mg/Kg		106	70 - 130
1,2,4-Trichlorobenzene	0.0500	0.04887		mg/Kg		98	70 _ 130
1,2,4-Trimethylbenzene	0.0500	0.04478		mg/Kg		90	70 - 130
1,2-Dibromo-3-Chloropropane	0.0500	0.04950		mg/Kg		99	70 _ 130
1,2-Dichlorobenzene	0.0500	0.04828		mg/Kg		97	70 - 130
1,2-Dichloroethane	0.0500	0.05049		mg/Kg		101	70 - 130

TestAmerica Buffalo

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# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

# Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-154424/4

**Matrix: Solid** 

Analysis Batch: 154424

Analysis Batch: 154424	Spike	LCS	LCS	cs			%Rec.	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
1,2-Dichloropropane	0.0500	0.05015		mg/Kg	— <u> </u>	100	70 - 130	
1,3,5-Trimethylbenzene	0.0500	0.04715		mg/Kg		94	70 - 130	
1,3-Dichlorobenzene	0.0500	0.04811		mg/Kg		96	70 - 130	
1,3-Dichloropropane	0.0500	0.05066		mg/Kg		101	70 - 130	
1,4-Dichlorobenzene	0.0500	0.04748		mg/Kg		95	70 - 130	
1,4-Dioxane	2.00	2.132		mg/Kg		107	70 - 130	
2,2-Dichloropropane	0.0500	0.04338		mg/Kg		87	70 - 130	
2-Butanone (MEK)	0.250	0.3491	*	mg/Kg		140	70 - 130	
2-Chlorotoluene	0.0500	0.04868		mg/Kg		97	70 - 130	
2-Hexanone	0.250	0.2541		mg/Kg		102	70 - 130	
4-Chlorotoluene	0.0500	0.05181		mg/Kg		104	70 - 130	
4-Isopropyltoluene	0.0500	0.04715		mg/Kg		94	70 - 130	
4-Methyl-2-pentanone (MIBK)	0.250	0.2530		mg/Kg		101	70 - 130	
Acetone	0.250	0.3183		mg/Kg		127	70 - 130	
Benzene	0.0500	0.04700		mg/Kg		94	70 - 130	
Bromobenzene	0.0500	0.04857		mg/Kg		97	70 - 130	
Bromoform	0.0500	0.04492		mg/Kg		90	70 - 130	
Bromomethane	0.0500	0.05282		mg/Kg		106	70 - 130	
Carbon disulfide	0.0500	0.04742		mg/Kg		95	70 - 130	
Carbon tetrachloride	0.0500	0.04396		mg/Kg		88	70 - 130	
Chlorobenzene	0.0500	0.04769		mg/Kg		95	70 - 130	
Chlorobromomethane	0.0500	0.04956		mg/Kg		99	70 - 130	
Chlorodibromomethane	0.0500	0.05177		mg/Kg		104	70 - 130	
Chloroethane	0.0500	0.05357		mg/Kg		107	70 - 130	
Chloroform	0.0500	0.04852		mg/Kg		97	70 - 130	
Chloromethane	0.0500	0.04453		mg/Kg		89	70 - 130	
cis-1,2-Dichloroethene	0.0500	0.04864		mg/Kg		97	70 - 130	
cis-1,3-Dichloropropene	0.0500	0.05167		mg/Kg		103	70 - 130	
Dichlorobromomethane	0.0500	0.05078		mg/Kg		102	70 - 130	
Dichlorodifluoromethane	0.100	0.07825		mg/Kg		78	70 - 130	
Ethyl ether	0.0500	0.04833		mg/Kg		97	70 - 130	
Ethylbenzene	0.0500	0.04467		mg/Kg		89	70 - 130	
Ethylene Dibromide	0.0500	0.05053		mg/Kg		101	70 - 130	
Hexachlorobutadiene	0.0500	0.04666		mg/Kg		93	70 <sub>-</sub> 130	
Isopropyl ether	0.0500	0.05011		mg/Kg		100	70 - 130	
Isopropylbenzene	0.0500	0.04760		mg/Kg		95	70 - 130	
Methyl tert-butyl ether	0.0500	0.04572		mg/Kg		91	70 - 130	
Methylene Chloride	0.0500	0.04628		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	0.100	0.08631		mg/Kg		86	70 - 130	
Naphthalene	0.0500	0.04613		mg/Kg		92	70 - 130	
n-Butylbenzene	0.0500	0.04728		mg/Kg		95	70 - 130	
N-Propylbenzene	0.0500	0.04776		mg/Kg		96	70 - 130	
o-Xylene	0.0500	0.04500		mg/Kg		90	70 - 130	
sec-Butylbenzene	0.0500	0.04716		mg/Kg		94	70 - 130	
Styrene	0.0500	0.04809		mg/Kg		96	70 - 130	
Tert-amyl methyl ether	0.0500	0.04947		mg/Kg		99	70 - 130	
Tert-butyl ethyl ether	0.0500	0.04840		mg/Kg		97	70 - 130	
tert-Butylbenzene	0.0500	0.04632		mg/Kg		93	70 - 130 70 - 130	

# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-154424/4

**Matrix: Solid** 

Analysis Batch: 154424

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	0.0500	0.04785		mg/Kg		96	70 - 130	
Tetrahydrofuran	0.250	0.2532		mg/Kg		101	70 _ 130	
Toluene	0.0500	0.04169		mg/Kg		83	70 _ 130	
trans-1,2-Dichloroethene	0.0500	0.04601		mg/Kg		92	70 - 130	
trans-1,3-Dichloropropene	0.0500	0.04985		mg/Kg		100	70 _ 130	
Trichloroethene	0.0500	0.04717		mg/Kg		94	70 - 130	
Trichlorofluoromethane	0.0500	0.05005		mg/Kg		100	70 _ 130	
Vinyl chloride	0.0500	0.04613		mg/Kg		92	70 _ 130	
Dibromomethane	0.0500	0.05134		mg/Kg		103	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Lab Sample ID: LCSD 480-154424/5

**Matrix: Solid** 

Analysis Batch: 154424

Analysis Batch: 154424	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	0.0500	0.04910		mg/Kg		98	70 - 130	1	20
1,1,1-Trichloroethane	0.0500	0.04672		mg/Kg		93	70 - 130	3	20
1,1,2,2-Tetrachloroethane	0.0500	0.05031		mg/Kg		101	70 - 130	6	20
1,1,2-Trichloroethane	0.0500	0.04980		mg/Kg		100	70 - 130	2	20
1,1-Dichloroethane	0.0500	0.04976		mg/Kg		100	70 - 130	0	20
1,1-Dichloroethene	0.0500	0.04422		mg/Kg		88	70 - 130	3	20
1,1-Dichloropropene	0.0500	0.04716		mg/Kg		94	70 - 130	1	20
1,2,3-Trichlorobenzene	0.0500	0.05078		mg/Kg		102	70 - 130	3	20
1,2,3-Trichloropropane	0.0500	0.05121		mg/Kg		102	70 - 130	4	20
1,2,4-Trichlorobenzene	0.0500	0.05005		mg/Kg		100	70 - 130	2	20
1,2,4-Trimethylbenzene	0.0500	0.04461		mg/Kg		89	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	0.0500	0.04624		mg/Kg		92	70 - 130	7	20
1,2-Dichlorobenzene	0.0500	0.04889		mg/Kg		98	70 - 130	1	20
1,2-Dichloroethane	0.0500	0.05019		mg/Kg		100	70 - 130	1	20
1,2-Dichloropropane	0.0500	0.05061		mg/Kg		101	70 - 130	1	20
1,3,5-Trimethylbenzene	0.0500	0.04712		mg/Kg		94	70 - 130	0	20
1,3-Dichlorobenzene	0.0500	0.04839		mg/Kg		97	70 - 130	1	20
1,3-Dichloropropane	0.0500	0.04949		mg/Kg		99	70 - 130	2	20
1,4-Dichlorobenzene	0.0500	0.04779		mg/Kg		96	70 - 130	1	20
1,4-Dioxane	2.00	1.948		mg/Kg		97	70 - 130	9	20
2,2-Dichloropropane	0.0500	0.04442		mg/Kg		89	70 - 130	2	20
2-Butanone (MEK)	0.250	0.3239		mg/Kg		130	70 - 130	7	20
2-Chlorotoluene	0.0500	0.04863		mg/Kg		97	70 - 130	0	20
2-Hexanone	0.250	0.2355		mg/Kg		94	70 - 130	8	20
4-Chlorotoluene	0.0500	0.05166		mg/Kg		103	70 - 130	0	20
4-Isopropyltoluene	0.0500	0.04821		mg/Kg		96	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	0.250	0.2372		mg/Kg		95	70 - 130	6	20
Acetone	0.250	0.2943		mg/Kg		118	70 - 130	8	20

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-154424/5

**Matrix: Solid** 

Dibromomethane

Analysis Batch: 154424

**Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA

	RPD	
RPD	Limit	

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04758		mg/Kg		95	70 - 130	1	20
Bromobenzene	0.0500	0.04871		mg/Kg		97	70 - 130	0	20
Bromoform	0.0500	0.04370		mg/Kg		87	70 - 130	3	20
Bromomethane	0.0500	0.05350		mg/Kg		107	70 - 130	1	20
Carbon disulfide	0.0500	0.04820		mg/Kg		96	70 - 130	2	20
Carbon tetrachloride	0.0500	0.04559		mg/Kg		91	70 - 130	4	20
Chlorobenzene	0.0500	0.04765		mg/Kg		95	70 - 130	0	20
Chlorobromomethane	0.0500	0.04930		mg/Kg		99	70 - 130	1	20
Chlorodibromomethane	0.0500	0.05077		mg/Kg		102	70 - 130	2	20
Chloroethane	0.0500	0.05694		mg/Kg		114	70 - 130	6	20
Chloroform	0.0500	0.04878		mg/Kg		98	70 - 130	1	20
Chloromethane	0.0500	0.04581		mg/Kg		92	70 - 130	3	20
cis-1,2-Dichloroethene	0.0500	0.04872		mg/Kg		97	70 - 130	0	20
cis-1,3-Dichloropropene	0.0500	0.05158		mg/Kg		103	70 - 130	0	20
Dichlorobromomethane	0.0500	0.05082		mg/Kg		102	70 - 130	0	20
Dichlorodifluoromethane	0.100	0.07868		mg/Kg		79	70 - 130	1	20
Ethyl ether	0.0500	0.04878		mg/Kg		98	70 - 130	1	20
Ethylbenzene	0.0500	0.04503		mg/Kg		90	70 - 130	1	20
Ethylene Dibromide	0.0500	0.04894		mg/Kg		98	70 - 130	3	20
Hexachlorobutadiene	0.0500	0.04891		mg/Kg		98	70 - 130	5	20
Isopropyl ether	0.0500	0.05004		mg/Kg		100	70 - 130	0	20
Isopropylbenzene	0.0500	0.04787		mg/Kg		96	70 - 130	1	20
Methyl tert-butyl ether	0.0500	0.04521		mg/Kg		90	70 - 130	1	20
Methylene Chloride	0.0500	0.04657		mg/Kg		93	70 - 130	1	20
m-Xylene & p-Xylene	0.100	0.08640		mg/Kg		86	70 - 130	0	20
Naphthalene	0.0500	0.04727		mg/Kg		95	70 - 130	2	20
n-Butylbenzene	0.0500	0.04843		mg/Kg		97	70 - 130	2	20
N-Propylbenzene	0.0500	0.04773		mg/Kg		95	70 - 130	0	20
o-Xylene	0.0500	0.04518		mg/Kg		90	70 - 130	0	20
sec-Butylbenzene	0.0500	0.04803		mg/Kg		96	70 - 130	2	20
Styrene	0.0500	0.04827		mg/Kg		97	70 - 130	0	20
Tert-amyl methyl ether	0.0500	0.04940		mg/Kg		99	70 - 130	0	20
Tert-butyl ethyl ether	0.0500	0.04886		mg/Kg		98	70 - 130	1	20
tert-Butylbenzene	0.0500	0.04751		mg/Kg		95	70 - 130	3	20
Tetrachloroethene	0.0500	0.04882		mg/Kg		98	70 - 130	2	20
Tetrahydrofuran	0.250	0.2371		mg/Kg		95	70 - 130	7	20
Toluene	0.0500	0.04167		mg/Kg		83	70 - 130	0	20
trans-1,2-Dichloroethene	0.0500	0.04679		mg/Kg		94	70 - 130	2	20
trans-1,3-Dichloropropene	0.0500	0.04882		mg/Kg		98	70 - 130	2	20
Trichloroethene	0.0500	0.04768		mg/Kg		95	70 - 130	1	20
Trichlorofluoromethane	0.0500	0.05123		mg/Kg		102	70 - 130	2	20
Vinyl chloride	0.0500	0.04745		mg/Kg		95	70 - 130	3	20

LCSD LCSD

Surrogate	%Recovery Qu	ıalifier Limits	
Toluene-d8 (Surr)	96	70 - 13	0
1,2-Dichloroethane-d4 (Surr)	98	70 - 13	0
4-Bromofluorobenzene (Surr)	99	70 - 13	0

TestAmerica Buffalo

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70 - 130

0.05059

mg/Kg

0.0500

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 240-111692/23-A

**Matrix: Solid** 

Analysis Batch: 112330

Client Sample ID: Method Blank Prep Type: Total/NA

12/05/13 13:13

**Prep Batch: 111692** 

l		MB	MB							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
	PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
	PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
ı	PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
	PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
	PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
١	PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
	PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		11/29/13 07:58	12/05/13 13:13	1

мв мв

<0.0330

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76	30 - 150	11/29/13 07:58	12/05/13 13:13	1
Tetrachloro-m-xylene	85	30 - 150	11/29/13 07:58	3 12/05/13 13:13	1
DCB Decachlorobiphenyl	80	30 - 150	11/29/13 07:58	3 12/05/13 13:13	1
DCB Decachlorobiphenyl	82	30 - 150	11/29/13 07:58	3 12/05/13 13:13	1

0.0330

0.0140 mg/Kg

**Client Sample ID: Lab Control Sample** 

11/29/13 07:58

**Matrix: Solid** 

**Matrix: Solid** 

PCB-1268

Analysis Batch: 112117

Lab Sample ID: LCS 240-111692/24-A

Lab Sample ID: LCSD 240-111692/25-A

Prep Type: Total/NA

**Prep Batch: 111692** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	0.333	0.2876		mg/Kg	_	86	40 - 140	
PCB-1260	0.333	0.2978		mg/Kg		89	40 - 140	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	82		30 - 150
Tetrachloro-m-xylene	109		30 - 150
DCB Decachlorobiphenyl	88		30 - 150
DCB Decachlorobiphenyl	78		30 - 150

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 111692** 

Analysis Batch: 112117 LCSD LCSD Spike %Rec. RPD Analyte Added Result Qualifier Limits Limit PCB-1016 0.333 0.2963 mg/Kg 89 40 - 140 3 30 PCB-1260 0.333 0.2912 mg/Kg 40 - 140 87 2 30

	LCSD L	CSD	
Surrogate	%Recovery Q	ualifier	Limits
Tetrachloro-m-xylene	89		30 - 150
Tetrachloro-m-xylene	114		30 - 150
DCB Decachlorobiphenyl	75		30 - 150
DCB Decachlorobiphenyl	67		30 - 150

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

MR MR

Lab Sample ID: MB 240-112062/23-A

**Matrix: Solid** 

**Analysis Batch: 112688** 

Client Sample ID: Method Blank

**Prep Batch: 112062** 

Prep Type: Total/NA

ı		INID	IVID							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
ı	PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
	PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
ı	PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
	PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
	PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
ı	PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
	PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		12/03/13 10:08	12/07/13 10:47	1
ı	PCB-1268	<0.0330		0.0330	0.0140	mg/Kg		12/03/13 10:08	12/07/13 10:47	1

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac Tetrachloro-m-xylene 65 30 - 150 12/03/13 10:08 12/07/13 10:47 66 30 - 150 Tetrachloro-m-xylene 12/03/13 10:08 12/07/13 10:47 DCB Decachlorobiphenyl 96 30 - 150 12/03/13 10:08 12/07/13 10:47 85 30 - 150 12/03/13 10:08 12/07/13 10:47 DCB Decachlorobiphenyl

Lab Sample ID: LCS 240-112062/24-A

**Matrix: Solid** 

**Analysis Batch: 112688** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 112062

	<b>Бріке</b>	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	0.333	0.3152		mg/Kg		95	40 - 140	
PCB-1260	0.333	0.3086		mg/Kg		93	40 - 140	

	LCS LCS	
Surrogate	%Recovery Quali	fier Limits
Tetrachloro-m-xylene	98	30 - 150
Tetrachloro-m-xylene	96	30 - 150
DCB Decachlorobiphenyl	80	30 - 150
DCB Decachlorobiphenyl	86	30 - 150

Lab Sample ID: LCSD 240-112062/25-A

**Matrix: Solid** 

Analysis Batch: 112688

<b>Client Sample</b>	ID:	Lab	Control	Sample	Dup

**Prep Type: Total/NA Prep Batch: 112062** 

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	0.333	0.2995		mg/Kg		90	40 - 140	5	30
PCB-1260	0.333	0.3041		mg/Kg		91	40 - 140	1	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	83		30 - 150
Tetrachloro-m-xylene	76		30 - 150
DCB Decachlorobiphenyl	86		30 - 150
DCB Decachlorobiphenyl	78		30 - 150

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Lab Sample ID: MB 480-154839/1-A

**Matrix: Water** 

Analysis Batch: 154990

Client Sample ID: Method Blank

**Prep Batch: 154839** 

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1221	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1232	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1242	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1248	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1254	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1260	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1262	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1
PCB-1268	<0.250		0.250	0.100	ug/L		11/29/13 07:49	11/30/13 12:42	1

мв мв

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92	30 - 150	11/29/13 07:49	11/30/13 12:42	1
DCB Decachlorobiphenyl	72	30 - 150	11/29/13 07:49	11/30/13 12:42	1

**Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

Analysis Batch: 154990

Lab Sample ID: LCS 480-154839/2-A

Lab Sample ID: LCSD 480-154839/3-A

Prep Type: Total/NA **Prep Batch: 154839** 

	<b>Бріке</b>	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	4.00	3.568		ug/L		89	40 - 140	
PCB-1260	4.00	3.686		ug/L		92	40 - 140	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	84		30 - 150
DCB Decachlorobiphenyl	74		30 - 150

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 154990 **Prep Batch: 154839** 

	Spike	LCSD	LCSD			%Rec.		RPD	
Analyte	Added	Result	Qualifier Un	it D	%Rec	Limits	RPD	Limit	
PCB-1016	4.00	3.764	ug/	<u>L</u> _	94	40 - 140	5	20	
PCB-1260	4.00	3.614	ug/	'L	90	40 - 140	2	20	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
Tetrachloro-m-xylene	90	30 - 150
DCB Decachlorobiphenyl	52	30 - 150

#### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-154450/1-B

**Matrix: Solid** 

**Matrix: Water** 

Analysis Batch: 154895

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 154450** 

	IVID	MID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.486		0.486	0.0788	mg/Kg	_	11/26/13 10:37	11/29/13 14:54	1
Acenaphthylene	<0.486		0.486	0.0875	mg/Kg		11/26/13 10:37	11/29/13 14:54	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

MR MR

Lab Sample ID: MB 480-154450/1-B

**Matrix: Solid** 

Analysis Batch: 154895

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 154450** 

	IVID I	IVID							
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	<0.486		0.486	0.0924	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[a]anthracene	<0.486		0.486	0.0739	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[a]pyrene	<0.486		0.486	0.0700	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[b]fluoranthene	<0.486		0.486	0.0691	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[g,h,i]perylene	<0.486		0.486	0.0827	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[k]fluoranthene	<0.486		0.486	0.0710	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
2-Methylnaphthalene	<0.486		0.486	0.0953	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Chrysene	<0.486		0.486	0.0866	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Dibenz(a,h)anthracene	0.1989	J	0.486	0.0681	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Fluoranthene	<0.486		0.486	0.0856	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Fluorene	<0.486		0.486	0.0973	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Indeno[1,2,3-cd]pyrene	0.2347	J	0.486	0.0710	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Naphthalene	<0.486		0.486	0.0817	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Phenanthrene	<0.486		0.486	0.0973	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Pyrene	<0.486		0.486	0.0885	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
C11-C22 Aromatics (unadjusted)	<4.86		4.86	1.95	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
C19-C36 Aliphatics	<4.86		4.86	1.95	mg/Kg		11/26/13 10:37	11/29/13 14:54	1

MB MB

<4.86

Surrogate	%Recovery (	Qualifier	Limits	Prepar	ed Analyzed	Dil Fac
1-Chlorooctadecane	80		40 - 140	11/26/13	10:37 11/29/13 14:54	1
2-Bromonaphthalene	82		40 - 140	11/26/13	10:37 11/29/13 14:54	1
2-Fluorobiphenyl	96		40 - 140	11/26/13	10:37 11/29/13 14:54	1
o-Terphenyl	75		40 - 140	11/26/13	10:37 11/29/13 14:54	1

4.86

1.95 mg/Kg

Lab Sample ID: LCS 480-154450/2-B

Matrix: Solid

C9-C18 Aliphatics

**Client Sample ID: Lab Control Sample** 

11/26/13 10:37 11/29/13 14:54

Prep Type: Total/NA

Analysis Batch: 154895							Prep Batch: 154450
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	4.77	2.562		mg/Kg		54	40 - 140
Acenaphthylene	4.77	2.798		mg/Kg		59	40 - 140
Anthracene	4.77	3.465		mg/Kg		73	40 - 140
Benzo[a]anthracene	4.77	3.651		mg/Kg		77	40 - 140
Benzo[a]pyrene	4.77	3.605		mg/Kg		76	40 - 140
Benzo[b]fluoranthene	4.77	3.573		mg/Kg		75	40 - 140
Benzo[g,h,i]perylene	4.77	3.519		mg/Kg		74	40 - 140
Benzo[k]fluoranthene	4.77	3.639		mg/Kg		76	40 - 140
2-Methylnaphthalene	4.77	2.250		mg/Kg		47	40 - 140
Chrysene	4.77	3.681		mg/Kg		77	40 - 140
Dibenz(a,h)anthracene	4.77	3.650		mg/Kg		77	40 - 140
Fluoranthene	4.77	3.600		mg/Kg		75	40 - 140
Fluorene	4.77	3.036		mg/Kg		64	40 - 140
Indeno[1,2,3-cd]pyrene	4.77	3.570		mg/Kg		75	40 - 140
Naphthalene	4.77	2.096		mg/Kg		44	40 - 140
Phenanthrene	4.77	3.403		mg/Kg		71	40 - 140
Pyrene	4.77	3.699		mg/Kg		78	40 - 140
C11-C22 Aromatics (unadjusted)	81.1	55.87		mg/Kg		69	40 - 140

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-154450/2-B

**Matrix: Solid** 

Analysis Batch: 154895

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 154450** 

-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
C19-C36 Aliphatics	38.2	29.51		mg/Kg		77	40 - 140	
C9-C18 Aliphatics	28.6	17.82		mg/Kg		62	40 - 140	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	74		40 - 140
2-Bromonaphthalene	66		40 - 140
2-Fluorobiphenyl	83		40 - 140
o-Terphenyl	68		40 - 140

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 154895

Lab Sample ID: LCSD 480-154450/3-B

Prep Batch: 154450

Analysis Batch: 154895							Fiebi	Satch: 1	<del>5445</del> 0
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	4.84	2.749		mg/Kg		57	40 - 140	7	25
Acenaphthylene	4.84	2.801		mg/Kg		58	40 - 140	0	25
Anthracene	4.84	3.503		mg/Kg		72	40 - 140	1	25
Benzo[a]anthracene	4.84	3.741		mg/Kg		77	40 - 140	2	25
Benzo[a]pyrene	4.84	3.675		mg/Kg		76	40 - 140	2	25
Benzo[b]fluoranthene	4.84	3.645		mg/Kg		75	40 - 140	2	25
Benzo[g,h,i]perylene	4.84	3.639		mg/Kg		75	40 - 140	3	25
Benzo[k]fluoranthene	4.84	3.744		mg/Kg		77	40 - 140	3	25
2-Methylnaphthalene	4.84	2.388		mg/Kg		49	40 - 140	6	25
Chrysene	4.84	3.780		mg/Kg		78	40 - 140	3	25
Dibenz(a,h)anthracene	4.84	3.697		mg/Kg		76	40 - 140	1	25
Fluoranthene	4.84	3.679		mg/Kg		76	40 - 140	2	25
Fluorene	4.84	3.067		mg/Kg		63	40 - 140	1	25
Indeno[1,2,3-cd]pyrene	4.84	3.633		mg/Kg		75	40 - 140	2	25
Naphthalene	4.84	2.146		mg/Kg		44	40 - 140	2	25
Phenanthrene	4.84	3.440		mg/Kg		71	40 - 140	1	25
Pyrene	4.84	3.757		mg/Kg		78	40 - 140	2	25
C11-C22 Aromatics (unadjusted)	82.2	57.37		mg/Kg		70	40 - 140	3	25
C19-C36 Aliphatics	38.7	29.07		mg/Kg		75	40 - 140	2	25
C9-C18 Aliphatics	29.0	15.92		mg/Kg		55	40 - 140	11	25

	LUSD	LUSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	72		40 - 140
2-Bromonaphthalene	74		40 - 140
2-Fluorobiphenyl	89		40 - 140
o-Terphenyl	66		40 - 140

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-154522/1-A Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA **Prep Batch: 154522** 

Analysis Batch: 155061

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.491		0.491	0.196	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Barium	<0.491		0.491	0.108	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Beryllium	<0.196		0.196	0.0275	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Cadmium	<0.196		0.196	0.0295	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Chromium	<0.491		0.491	0.196	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Nickel	<0.982		0.982	0.226	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Vanadium	<0.491		0.491	0.108	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Zinc	0.3711	J	2.45	0.150	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
Lead	<0.491		0.491	0.236	mg/Kg		11/26/13 10:00	12/01/13 00:24	1
<u> </u>									

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 154522** 

**Matrix: Solid** 

Analysis Batch: 155331

Lab Sample ID: MB 480-154522/1-A

MB MB

MD MD

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.982		0.982	0.393	mg/Kg		11/26/13 10:00	12/02/13 16:31	1
Thallium	<0.982		0.982	0.295	mg/Kg		11/26/13 10:00	12/02/13 16:31	1
Selenium	<0.491		0.491	0.393	mg/Kg		11/26/13 10:00	12/02/13 16:31	1
Antimony	<0.491	^	0.491	0.393	mg/Kg		11/26/13 10:00	12/02/13 16:31	1

Lab Sample ID: LCDSRM 480-154522/3-A LCDSRM

**Matrix: Solid** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 155061							Prep E	3atch: 1	54522
	Spike	LCDSRM	LCDSRM				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	40.4	38.78		mg/Kg		96.0	65.8 - 133. 7	2	20
Barium	310	302.9		mg/Kg		97.7	74.2 - 126. 1	5	20
Beryllium	72.3	71.35		mg/Kg		98.7	73.9 - 126. 1	0	20
Cadmium	182	172.5		mg/Kg		94.8	73.6 - 126. 4	3	20
Chromium	136	128.7		mg/Kg		94.6	70.4 - 130. 1	1	20
Nickel	153	156.5		mg/Kg		102.3	73.2 - 126. 1	1	20
Vanadium	97.6	88.15		mg/Kg		90.3	65.2 <sub>-</sub> 135. 2	1	20
Zinc	161	145.0		mg/Kg		90.0	68.3 - 131. 7	1	20
Lead	115	112.1		mg/Kg		97.4	72.1 <sub>- 128.</sub> 7	1	20

Lab Sample ID: LCDSRM 480-154522/3-A LCDSRM

**Matrix: Solid** 

Analysis Batch: 155331

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 154522** 

LCDSRM LCDSRM Spike %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 69.3 - 130. Arsenic 99.6 101.2 mg/Kg 101.6 5

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 480-154522/3-A LCDSRM Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Prep Batch: 154522** Analysis Batch: 155331

	<b>Spike</b>	LCDSRM	LCDSRM				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Thallium	174	182.4		mg/Kg	_	104.8	69.0 - 131.	4	20
							6		
Selenium	150	151.2		mg/Kg		100.8	67.3 - 132.	1	20
							7		
Antimony	88.2	66.94	٨	mg/Kg		75.9	26.3 - 289.	0	20
							4		

Client Sample ID: Lab Control Sample Lab Sample ID: LCSSRM 480-154522/2-A **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 155061							Prep Bato	:h: 154522
	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silver	40.4	39.41		mg/Kg		97.5	65.8 - 133.	
							7	
Barium	310	289.1		mg/Kg		93.2	74.2 - 126.	
							1	
Beryllium	72.3	71.29		mg/Kg		98.6	73.9 - 126.	
							1	
Cadmium	182	178.3		mg/Kg		97.9	73.6 - 126.	
							4	
Chromium	136	128.0		mg/Kg		94.0	70.4 - 130.	
							1	
Nickel	153	158.5		mg/Kg		103.5	73.2 - 126.	
,,,								
Vanadium	97.6	86.88		mg/Kg		89.0	65.2 - 135.	
7	404	440.0				00.7	2	
Zinc	161	146.0		mg/Kg		90.7	68.3 <sub>-</sub> 131.	
Load	115	110 7		ma/l/a		00.0	7	
Lead	115	113.7		mg/Kg		98.8	72.1 <sub>- 128</sub> .	
							/	

Lab Sample ID: LCSSRM 480-154522/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 155331

Spike LCSSRM LCSSRM %Rec. Analyte Added Result Qualifier Limits Unit %Rec 99.6 100.5 100.9 Arsenic mg/Kg 69.3 - 130. Thallium 174 175.0 100.5 mg/Kg 69.0 - 131. 6 67.3 - 132. Selenium 150 152.1 mg/Kg 101.4 7 67.18 ^ Antimony 88.2 mg/Kg 76.1 26.3 - 289.

Lab Sample ID: 480-50846-11 MS Client Sample ID: WCSS-58 (0-0.25) MS

**Matrix: Solid** Analysis Batch: 155061

Prep Batch: 154522 Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier D %Rec Limits Unit ₽ Silver <0.493 10.2 9.727 mg/Kg 95 75 - 125 Barium 49.1 40.8 80.97 mg/Kg ₩ 78 75 - 125 Beryllium 0.277 40.8 40.17 mg/Kg ₽ 98 75 - 125

TestAmerica Buffalo

12/12/2013

Prep Type: Total/NA

**Prep Batch: 154522** 

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

ID: 480-50846-1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-50846-11 MS

Matrix: Solid

Analysis Batch: 155061

Client Sample ID: WCSS-58 (0-0.25) MS

Prep Type: Total/NA

Prep Batch: 154522

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cadmium	0.654		40.8	39.90		mg/Kg	₩	96	75 - 125	
Chromium	25.4		40.8	67.96		mg/Kg	\$	104	75 - 125	
Nickel	23.7		40.8	69.45		mg/Kg	☼	112	75 - 125	
Vanadium	22.9		40.8	68.95		mg/Kg	\$	113	75 - 125	
Lead	121		40.8	181.2	F	mg/Kg	₽	147	75 - 125	

Client Sample ID: WCSS-58 (0-0.25) MS

Matrix: Solid

Analysis Batch: 155331

Lab Sample ID: 480-50846-11 MS

Prep Type: Total/NA

Prep Batch: 154522

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	3.42		40.8	44.40		mg/Kg	₩	100	75 - 125	
Thallium	<0.986		40.8	39.65		mg/Kg	₩	97	75 - 125	
Zinc	137	В	40.8	193.9	F	mg/Kg	≎	139	75 - 125	
Selenium	<0.493		40.8	40.69		mg/Kg	₽	100	75 - 125	
Antimony	<0.493	٨	40.8	35.53	۸	mg/Kg	₽	87	75 - 125	

Lab Sample ID: 480-50846-11 MSD Client Sample ID: WCSS-58 (0-0.25) MSD

Matrix: Solid

Analysis Batch: 155061

Prep Type: Total/NA Prep Batch: 154522

1	Analysis Batom 100001									1.100.	Jutoii. I	UTULL
١		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Silver	<0.493		9.82	9.186		mg/Kg	<del>\tilde{\pi}</del>	94	75 - 125	6	35
	Barium	49.1		39.3	78.88		mg/Kg	≎	76	75 - 125	3	35
	Beryllium	0.277		39.3	37.80		mg/Kg	₩	96	75 - 125	6	35
	Cadmium	0.654		39.3	37.49		mg/Kg	₽	94	75 - 125	6	35
	Chromium	25.4		39.3	56.50		mg/Kg	₽	79	75 - 125	18	35
	Nickel	23.7		39.3	59.30		mg/Kg	₩	91	75 - 125	16	35
	Vanadium	22.9		39.3	55.58		mg/Kg	₽	83	75 - 125	21	35
	Lead	121		39.3	162.8		mg/Kg	₩	106	75 - 125	11	35
	Cadmium Chromium Nickel Vanadium	0.654 25.4 23.7 22.9		39.3 39.3 39.3 39.3	37.49 56.50 59.30 55.58		mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$ \$	94 79 91 83	75 <sub>-</sub> 125 75 <sub>-</sub> 125 75 <sub>-</sub> 125 75 <sub>-</sub> 125	6 18 16 21	3

Lab Sample ID: 480-50846-11 MSD Client Sample ID: WCSS-58 (0-0.25) MSD

Matrix: Solid

Analysis Batch: 155331

Prep Type: Total/NA

**Prep Batch: 154522** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	3.42		39.3	41.56		mg/Kg	<del>\</del>	97	75 - 125	7	35
Thallium	<0.986		39.3	37.71		mg/Kg	₩	96	75 - 125	5	35
Zinc	137	В	39.3	167.8		mg/Kg	₩	78	75 - 125	14	35
Selenium	<0.493		39.3	38.73		mg/Kg	₽	99	75 - 125	5	35
Antimony	<0.493	۸	39.3	35.16	۸	mg/Kg	₩	90	75 - 125	1	35

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample Dup

Limits

50.9 - 149.

1

Client Sample ID: Lab Control Sample

%Rec.

Limits

50.9 - 149.

%Rec.

%Rec

%Rec

54.4

62.2

Prep Type: Total/NA

Prep Batch: 154828

Prep Type: Total/NA

Prep Batch: 154828

RPD

Prep Type: Total/NA Prep Batch: 154828

Prep Type: Total/NA

Prep Batch: 154828

13

RPD

Limit

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 480-154828/1-A

**Matrix: Solid** 

Analysis Batch: 155027

MB MB

Sample Sample

Sample Sample

Result Qualifier

мв мв

Qualifier

Result

0.0807

0.0807

Result Qualifier

RL MDL Unit Result Qualifier D Dil Fac Analyte Prepared Analyzed 0.100 11/29/13 08:40 Mercury <0.100 0.00812 mg/Kg 11/29/13 14:03

Lab Sample ID: LCDSRM 480-154828/3-A LCDSRM

**Matrix: Solid** 

Analysis Batch: 155027

Analyte Mercury

Lab Sample ID: LCSSRM 480-154828/2-A

**Matrix: Solid** 

Analysis Batch: 155027

Analyte

Mercury

Lab Sample ID: 480-50846-11 MS **Matrix: Solid** 

Analysis Batch: 155027

Analyte Mercury

Lab Sample ID: 480-50846-11 MSD

Analysis Batch: 155027

**Matrix: Solid** 

Analyte Mercury

Lab Sample ID: MB 480-154829/1-A **Matrix: Solid** 

Analysis Batch: 155027

Analyte

Mercury <0.0993

Lab Sample ID: LCDSRM 480-154829/3-A LCDSRM

**Matrix: Solid** 

Analysis Batch: 155027

Analyte Mercury

Added 3.75

Spike

Spike

Added

3.76

Spike

Added

0.344

Spike

Added

0.345

Spike

Added

3.77

RΙ

0.0993

Result Qualifier 2.331

LCSSRM LCSSRM

LCDSRM LCDSRM

Result Qualifier 2.042

MS MS

F

MSD MSD

0.2910 F

Result Qualifier

MDL Unit

0.00804 mg/Kg

Qualifier

LCDSRM LCDSRM

Result

2.043

0.2721

Unit mg/Kg

Client Sample ID: WCSS-58 (0-0.25) MS

Unit

mg/Kg

Result Qualifier

Unit D mg/Kg

Unit

Unit

mg/Kg

mg/Kg

%Rec Limits 56 75 - 125 Client Sample ID: WCSS-58 (0-0.25) MSD

%Rec

61

D

₩

D

%Rec

54.2

D

Prep Type: Total/NA Prep Batch: 154828

%Rec. RPD Limits Limit 75 - 125

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 154829

Prepared Analyzed Dil Fac 11/29/13 08:40 11/29/13 15:50

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Prep Batch: 154829** %Rec. RPD Limits RPD Limit

50.9 - 149.

# **QC Sample Results**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

## Method: 7471A - Mercury (CVAA) (Continued)

Mercury

Lab Sample ID: LCSSRM 480-154829/2-A					Client	Sample	ID: Lab Control Sample	
Matrix: Solid							Prep Type: Total/NA	
Analysis Batch: 155027							Prep Batch: 154829	)
-	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	

1.963

mg/Kg

52.1 50.9 - 149.

3.77

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

### **GC/MS VOA**

### Analysis Batch: 154424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-13	WCSS-56 (0-0.25)	Total/NA	Solid	8260C	154449
480-50846-14	WCSS-55 (0-0.25)	Total/NA	Solid	8260C	154449
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	8260C	154449
480-50846-20	TB-11222013 (1)	Total/NA	Solid	8260C	154449
LCS 480-154424/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 480-154424/5	Lab Control Sample Dup	Total/NA	Solid	8260C	
MB 480-154424/6	Method Blank	Total/NA	Solid	8260C	

### **Prep Batch: 154449**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-13	WCSS-56 (0-0.25)	Total/NA	Solid	5035	
480-50846-14	WCSS-55 (0-0.25)	Total/NA	Solid	5035	
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	5035	
480-50846-20	TB-11222013 (1)	Total/NA	Solid	5035	

## GC Semi VOA

#### **Prep Batch: 111692**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	3540C	
480-50846-2	WCSS-47 (0-0.25)	Total/NA	Solid	3540C	
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	3540C	
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	3540C	
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	3540C	
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	3540C	
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	3540C	
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	3540C	
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	3540C	
480-50846-12	WCSS-958 (0-0.25)	Total/NA	Solid	3540C	
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	3540C	
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	3540C	
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	3540C	
LCS 240-111692/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-111692/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-111692/23-A	Method Blank	Total/NA	Solid	3540C	

## Prep Batch: 112062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	3540C	
LCS 240-112062/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-112062/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-112062/23-A	Method Blank	Total/NA	Solid	3540C	

## Analysis Batch: 112117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-2	WCSS-47 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	8082	111692

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## GC Semi VOA (Continued)

#### **Analysis Batch: 112117 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-12	WCSS-958 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	8082	111692
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	8082	111692
LCS 240-111692/24-A	Lab Control Sample	Total/NA	Solid	8082	111692
LCSD 240-111692/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	111692

### Analysis Batch: 112330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-111692/23-A	Method Blank	Total/NA	Solid	8082	111692

#### Analysis Batch: 112688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-112062/24-A	Lab Control Sample	Total/NA	Solid	8082	112062
LCSD 240-112062/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	112062
MB 240-112062/23-A	Method Blank	Total/NA	Solid	8082	112062

#### Analysis Batch: 112886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	8082	112062

### **Prep Batch: 154450**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	3546	
LCS 480-154450/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 480-154450/3-B	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 480-154450/1-B	Method Blank	Total/NA	Solid	3546	

#### Fraction Batch: 154639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	MA EPH Frac	154450
LCS 480-154450/2-B	Lab Control Sample	Total/NA	Solid	MA EPH Frac	154450
LCSD 480-154450/3-B	Lab Control Sample Dup	Total/NA	Solid	MA EPH Frac	154450
MB 480-154450/1-B	Method Blank	Total/NA	Solid	MA EPH Frac	154450

#### **Prep Batch: 154839**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-19	WCEB-57 (0-0.25)	Total/NA	Water	3510C	
LCS 480-154839/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-154839/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-154839/1-A	Method Blank	Total/NA	Water	3510C	

#### Analysis Batch: 154895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	MA-EPH	154639
LCS 480-154450/2-B	Lab Control Sample	Total/NA	Solid	MA-EPH	154639
LCSD 480-154450/3-B	Lab Control Sample Dup	Total/NA	Solid	MA-EPH	154639

TestAmerica Buffalo

# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50846-1

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## GC Semi VOA (Continued)

## Analysis Batch: 154895 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-154450/1-B	Method Blank	Total/NA	Solid	MA-EPH	154639

#### Analysis Batch: 154990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-19	WCEB-57 (0-0.25)	Total/NA	Water	8082	154839
LCS 480-154839/2-A	Lab Control Sample	Total/NA	Water	8082	154839
LCSD 480-154839/3-A	Lab Control Sample Dup	Total/NA	Water	8082	154839
MB 480-154839/1-A	Method Blank	Total/NA	Water	8082	154839

#### Analysis Batch: 155390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	MA-EPH	

#### **Metals**

#### **Prep Batch: 154522**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	3050B	
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	3050B	
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	3050B	
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	3050B	
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	3050B	
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	3050B	
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	3050B	
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	3050B	
480-50846-10	WCSS-50 (0-0.25)	Total/NA	Solid	3050B	
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	3050B	
480-50846-11 MS	WCSS-58 (0-0.25) MS	Total/NA	Solid	3050B	
480-50846-11 MSD	WCSS-58 (0-0.25) MSD	Total/NA	Solid	3050B	
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	3050B	
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	3050B	
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	3050B	
480-50846-18	WCSS-72(0-0.25)	Total/NA	Solid	3050B	
LCDSRM 480-154522/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-154522/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-154522/1-A	Method Blank	Total/NA	Solid	3050B	

## Prep Batch: 154828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	7471A	
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	7471A	
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	7471A	
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	7471A	
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	7471A	
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	7471A	
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	7471A	
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	7471A	
480-50846-10	WCSS-50 (0-0.25)	Total/NA	Solid	7471A	
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	7471A	
480-50846-11 MS	WCSS-58 (0-0.25) MS	Total/NA	Solid	7471A	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Metals (Continued)

## Prep Batch: 154828 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-11 MSD	WCSS-58 (0-0.25) MSD	Total/NA	Solid	7471A	
LCDSRM 480-154828/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	
LCSSRM 480-154828/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 480-154828/1-A	Method Blank	Total/NA	Solid	7471A	

#### **Prep Batch: 154829**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	7471A	
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	7471A	
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	7471A	
480-50846-18	WCSS-72(0-0.25)	Total/NA	Solid	7471A	
LCDSRM 480-154829/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	
LCSSRM 480-154829/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 480-154829/1-A	Method Blank	Total/NA	Solid	7471A	

### Analysis Batch: 155027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-10	WCSS-50 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	7471A	154828
480-50846-11 MS	WCSS-58 (0-0.25) MS	Total/NA	Solid	7471A	154828
480-50846-11 MSD	WCSS-58 (0-0.25) MSD	Total/NA	Solid	7471A	154828
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	7471A	154829
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	7471A	154829
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	7471A	154829
480-50846-18	WCSS-72(0-0.25)	Total/NA	Solid	7471A	154829
LCDSRM 480-154828/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	154828
LCDSRM 480-154829/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	154829
LCSSRM 480-154828/2-A	Lab Control Sample	Total/NA	Solid	7471A	154828
LCSSRM 480-154829/2-A	Lab Control Sample	Total/NA	Solid	7471A	154829
MB 480-154828/1-A	Method Blank	Total/NA	Solid	7471A	154828
MB 480-154829/1-A	Method Blank	Total/NA	Solid	7471A	154829

#### Analysis Batch: 155061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-10	WCSS-50 (0-0.25)	Total/NA	Solid	6010	154522

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals (Continued)** 

## Analysis Batch: 155061 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-11 MS	WCSS-58 (0-0.25) MS	Total/NA	Solid	6010	154522
480-50846-11 MSD	WCSS-58 (0-0.25) MSD	Total/NA	Solid	6010	154522
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-18	WCSS-72(0-0.25)	Total/NA	Solid	6010	154522
LCDSRM 480-154522/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	6010	154522
LCSSRM 480-154522/2-A	Lab Control Sample	Total/NA	Solid	6010	154522
MB 480-154522/1-A	Method Blank	Total/NA	Solid	6010	154522

### Analysis Batch: 155331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-10	WCSS-50 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-11 MS	WCSS-58 (0-0.25) MS	Total/NA	Solid	6010	154522
480-50846-11 MSD	WCSS-58 (0-0.25) MSD	Total/NA	Solid	6010	154522
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	6010	154522
480-50846-18	WCSS-72(0-0.25)	Total/NA	Solid	6010	154522
LCDSRM 480-154522/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	6010	154522
LCSSRM 480-154522/2-A	Lab Control Sample	Total/NA	Solid	6010	154522
MB 480-154522/1-A	Method Blank	Total/NA	Solid	6010	154522

## **General Chemistry**

#### Analysis Batch: 111911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-1	WCSS-61 (0-0.25)	Total/NA	Solid	Moisture	_
480-50846-1 DU	WCSS-61 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-2	WCSS-47 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-3	WCSS-60 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-4	WCSS-59 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-5	WCSS-54 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-6	WCSS-53 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-7	WCSS-52 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-8	WCSS-51 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-9	WCSS-49 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-12	WCSS-958 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-12 DU	WCSS-958 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-15	WCSS-57 (0-0.25)	Total/NA	Solid	Moisture	

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

## **General Chemistry (Continued)**

### **Analysis Batch: 111911 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-16	WCSS-62 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-17	WCSS-63 (0-0.25)	Total/NA	Solid	Moisture	

#### Analysis Batch: 154545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50846-10	WCSS-50 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-11	WCSS-58 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-11 MS	WCSS-58 (0-0.25) MS	Total/NA	Solid	Moisture	
480-50846-11 MSD	WCSS-58 (0-0.25) MSD	Total/NA	Solid	Moisture	
480-50846-13	WCSS-56 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-14	WCSS-55 (0-0.25)	Total/NA	Solid	Moisture	
480-50846-18	WCSS-72(0-0.25)	Total/NA	Solid	Moisture	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-61 (0-0.25)

Lab Sample ID: 480-50846-1

Date Collected: 11/22/13 07:50
Date Received: 11/26/13 02:00

Matrix: Solid Percent Solids: 96.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1	112117	12/03/13 22:21	LSH	TAL CAN
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:21	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 00:41	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 16:49	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:08	BLW	TAL CAN

Client Sample ID: WCSS-47 (0-0.25)

Lab Sample ID: 480-50846-2

Date Collected: 11/22/13 08:00 Matrix: Solid
Date Received: 11/26/13 02:00 Percent Solids: 90.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		5	112117	12/03/13 22:36	LSH	TAL CAN
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:08	BLW	TAL CAN

Client Sample ID: WCSS-60 (0-0.25)

Lab Sample ID: 480-50846-3

Date Collected: 11/22/13 08:10
Date Received: 11/26/13 02:00
Percent Solids: 95.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		5	112117	12/03/13 22:52	LSH	TAL CAN
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:22	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 00:44	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:03	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:08	BLW	TAL CAN

Client Sample ID: WCSS-59 (0-0.25)

Lab Sample ID: 480-50846-4

Date Collected: 11/22/13 08:25

Date Received: 11/26/13 02:00

Matrix: Solid
Percent Solids: 93.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		1	112117	12/03/13 23:08	LSH	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-59 (0-0.25)

Date Collected: 11/22/13 08:25 Date Received: 11/26/13 02:00 Lab Sample ID: 480-50846-4

Matrix: Solid

Matrix: Solid Percent Solids: 93.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1	155027	11/29/13 15:24	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 00:54	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:05	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSS-54 (0-0.25)

Lab Sample ID: 480-50846-5

Date Collected: 11/22/13 08:35

Date Received: 11/26/13 02:00

Matrix: Solid
Percent Solids: 96.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		5	112117	12/03/13 23:39	LSH	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:26	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 00:56	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:08	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSS-53 (0-0.25)

Lab Sample ID: 480-50846-6

Date Collected: 11/22/13 08:50 Matrix: Solid
Date Received: 11/26/13 02:00 Percent Solids: 96.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C	<del></del>		111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		5	112117	12/03/13 23:55	LSH	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:28	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 00:58	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:10	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Client Sample ID: WCSS-52 (0-0.25)

Lab Sample ID: 480-50846-7

Matrix: Solid

Date Collected: 11/22/13 09:00 Date Received: 11/26/13 02:00

Percent Solids: 88.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		10	112117	12/04/13 00:11	LSH	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:30	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:00	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:13	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSS-51 (0-0.25)

Lab Sample ID: 480-50846-8

Date Collected: 11/22/13 09:10 Matrix: Solid

Date Received: 11/26/13 02:00 Percent Solids: 88.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			112062	12/03/13 10:08	MPM	TAL CAN
Total/NA	Analysis	8082		20	112886	12/09/13 17:07	LSH	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		10	155027	11/29/13 15:32	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:03	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:16	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSS-49 (0-0.25)

Lab Sample ID: 480-50846-9

Date Collected: 11/22/13 09:20

Matrix: Solid
Date Received: 11/26/13 02:00

Percent Solids: 86.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		10	112117	12/03/13 16:34	LSH	TAL CAN
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		20	155027	11/29/13 15:33	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:05	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:18	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-50846-10

Matrix: Solid

Percent Solids: 90.4

Client Sample ID: WCSS-50 (0-0.25)

Date Collected: 11/22/13 09:30 Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A	<del></del>		154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:36	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:08	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:21	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

Client Sample ID: WCSS-58 (0-0.25)

Lab Sample ID: 480-50846-11

Date Collected: 11/22/13 09:40 Matrix: Solid
Date Received: 11/26/13 02:00 Percent Solids: 93.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		5	112117	12/03/13 16:50	LSH	TAL CAN
Total/NA	Prep	7471A			154828	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:41	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:10	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:34	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

Client Sample ID: WCSS-958 (0-0.25)

Lab Sample ID: 480-50846-12

Date Collected: 11/22/13 09:40

Date Received: 11/26/13 02:00

Matrix: Solid
Percent Solids: 90.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		5	112117	12/03/13 17:06	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSS-56 (0-0.25)

Lab Sample ID: 480-50846-13

 Date Collected: 11/22/13 10:00
 Matrix: Solid

 Date Received: 11/26/13 02:00
 Percent Solids: 91.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 15:06	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-50846-14

Matrix: Solid

Percent Solids: 92.8

Client Sample ID: WCSS-55 (0-0.25)

Date Collected: 11/22/13 10:05 Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 15:31	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

Client Sample ID: WCSS-57 (0-0.25) Lab Sample ID: 480-50846-15

Date Collected: 11/22/13 10:15 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 87.8

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 15:56	CDC	TAL BUF
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		1	112117	12/03/13 17:21	LSH	TAL CAN
Total/NA	Fraction	MA EPH Frac			154639	11/27/13 08:07	KEB	TAL BUF
Total/NA	Prep	3546			154450	11/26/13 10:37	CAM	TAL BUF
Total/NA	Analysis	MA-EPH		1	154895	11/29/13 17:22	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	155390	12/03/13 12:12	DGB	TAL BUF
Total/NA	Prep	7471A			154829	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 15:55	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:29	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:47	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSS-62 (0-0.25)

Lab Sample ID: 480-50846-16 Date Collected: 11/22/13 10:35 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 90.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		10	112117	12/03/13 17:53	LSH	TAL CAN
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Prep	7471A			154829	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		5	155027	11/29/13 16:38	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:32	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:49	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

4

Client Sample ID: WCSS-63 (0-0.25)

Lab Sample ID: 480-50846-17

Matrix: Solid

Date Collected: 11/22/13 10:40 Date Received: 11/26/13 02:00

Percent Solids: 51.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		20	112117	12/03/13 18:09	LSH	TAL CAN
Total/NA	Prep	7471A			154829	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 16:02	JRK	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155061	12/01/13 01:34	AMH	TAL BUF
Total/NA	Prep	3050B			154522	11/26/13 10:00	SS1	TAL BUF
Total/NA	Analysis	6010		1	155331	12/02/13 17:52	AMH	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSS-72(0-0.25)

Lab Sample ID: 480-50846-18

Date Collected: 11/22/13 10:50 Matrix: Solid
Date Received: 11/26/13 02:00 Percent Solids: 90.7

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Prep 7471A 154829 11/29/13 08:40 JRK TAL BUF Total/NA 7471A 11/29/13 16:04 155027 .IRK TAL BUF Analysis 1 Total/NA Prep 3050B 154522 11/26/13 10:00 SS1 TAL BUF Total/NA Analysis 6010 155061 12/01/13 01:37 AMH TAL BUF Total/NA Prep 3050B 154522 11/26/13 10:00 SS1 TAL BUF TAL BUF Total/NA 6010 155331 12/02/13 18:05 AMH Analysis Total/NA Analysis Moisture 154545 11/26/13 19:24 GTG TAL BUF

Client Sample ID: WCEB-57 (0-0.25)

Lab Sample ID: 480-50846-19

Date Collected: 11/22/13 11:15

Date Received: 11/26/13 02:00

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			154839	11/29/13 07:49	KEB	TAL BUF
Total/NA	Analysis	8082		1	154990	11/30/13 13:27	JMM	TAL BUF

Client Sample ID: TB-11222013 (1) Lab Sample ID: 480-50846-20

Date Collected: 11/22/13 12:00 Matrix: Solid

Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 16:22	CDC	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TestAmerica Buffalo

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8

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11

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

### Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

California         NELAP         9         1169CA         09-30-14           Connecticut         State Program         1         PH-0568         09-30-14           Clorida         NELAP         4         E87672         06-30-14           Georgia         State Program         4         N/A         03-31-14           Illinois         NELAP         5         200003         09-30-14           towa         State Program         7         374         03-01-15           Kansas         NELAP         7         E-10187         01-31-14           Kentucky         State Program         4         90029         12-31-13 *           Kentucky (UST)         State Program         4         90029         12-31-13 *           Kentucky (UST)         State Program         4         90029         12-31-13 *           Kentucky (UST)         State Program         4         90029         12-31-13 *           Member (UST)         State Program         1         NY00044         12-04-14           Maine         State Program         1         NY00044         12-04-14           Maryand         State Program         1         M-NY044         06-30-14           Messach	Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut         State Program         1         PH-0568         09-30-14           Florida         NELAP         4         E87672         06-30-14           Georgia         State Program         4         N/A         03-31-14           Illinois         NELAP         5         200003         09-30-14           Iowa         State Program         7         374         03-01-15           Kansas         NELAP         7         E-10187         01-31-14           Kentucky         State Program         4         90029         12-31-13*           Kentucky (UST)         State Program         4         30         04-01-14           Louisiana         NELAP         6         02031         06-30-14           Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Messachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Michigan         State Program         5         9937         04-01-14           Michigan         State Pro	Arkansas DEQ	State Program	6	88-0686	07-06-14
Florida NELAP 4 E87672 06-30-14 Georgia State Program 4 N/A 03-31-14 Illinois NELAP 5 200003 09-30-14 Illinois NELAP 7 374 03-01-15 Kansas NELAP 7 E-10187 01-31-14 Kentucky State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Kentucky (UST) State Program 4 90029 12-31-13 * Maine State Program 1 NY00044 12-04-14 Maine State Program 3 294 03-31-14 Massachusetts State Program 1 NY00044 06-30-14 Michigan State Program 5 9937 04-01-14 Michigan State Program 5 9937 04-01-14 Michigan State Program 5 9937 12-31-13 * New Hampshire NELAP 5 036-999-337 12-31-13 * New Hampshire NELAP 1 2337 11-17-14 New Jersey NELAP 2 NY455 06-30-14 New York NELAP 2 10026 04-01-14 North Dakota State Program 8 R-176 03-31-14 North Dakota State Program 6 9421 08-31-14 North Dakota State Program 6 9421 08-31-14 North Dakota State Program 1 NY200003 06-09-14 Pennsylvania NELAP 3 68-00281 07-31-14 Rhode Island State Program 1 LA000328 12-31-13 * Tennessee State Program 4 NY00003 06-09-14 Pennsylvania NELAP 7 NY00003 06-09-14 Pennsylvania NELAP 8 NY00003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 1 LA000328 12-31-13 * Tennessee State Program 4 NY00003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania NELAP 9 10 NY20003 06-09-14 Pennsylvania 9 10 NY20003 06-09-14 Pennsylvania 9 10 NY20003 06-09-14 Pennsylvania 9 10 NY20003 06-09-14 Pennsylvania 9 10 NY20003 06-09-14 Pennsylvan	California	NELAP	9	1169CA	09-30-14
Georgia         State Program         4         N/A         03-31-14           Illinois         NELAP         5         200003         09-30-14           lowa         State Program         7         374         03-01-15           Kansas         NELAP         7         E-10187         01-31-14           Kentucky         State Program         4         90029         12-31-13 *           Kentucky (UST)         State Program         4         30         04-01-14           Louisiana         NELAP         6         02031         06-30-14           Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY0044         06-30-14           Massachusetts         State Program         5         9937         04-01-14           Michigan         State Program         5         9937         04-01-14           Michigan         NELAP         5         036-99-337         12-31-13 *           New Jersey         NELAP         1         2337         11-17-14           New Jersey         NELAP	Connecticut	State Program	1	PH-0568	09-30-14
Illinois   NELAP   5   200003   09-30-14     Iowa   State Program   7   374   03-01-15     Kansas   NELAP   7   E-10187   01-31-14     Kentucky   State Program   4   90029   12-31-13 *   Kentucky (UST)   State Program   4   30   04-01-14     Louisiana   NELAP   6   02031   06-30-14     Maine   State Program   1   NY00044   12-04-14     Maryland   State Program   3   294   03-31-14     Massachusetts   State Program   1   M-NY044   06-30-14     Michigan   State Program   5   9937   04-01-14     Minnesota   NELAP   5   036-999-337   12-31-13 *   New Hampshire   NELAP   1   2337   11-17-14     New Jersey   NELAP   2   NY455   06-30-14     New York   NELAP   2   10026   04-01-14     North Dakota   State Program   8   R-176   03-31-14     North Dakota   State Program   6   9421   08-31-14     Oregon   NELAP   1   NY200003   06-09-14     Pennsylvania   NELAP   3   68-00281   07-31-14     Rhode Island   State Program   1   LA000328   12-31-13 *   Tennessee   State Program   4   TN02970   04-01-14     Rhode Island   Federal   P30-01-103-6   09-14-14     USDA   Federal   P30-01-103-6   09-14-14     Washington   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     West Virginia   DEP   State Program   10   C784   02-10-14     We	Florida	NELAP	4	E87672	06-30-14
Iowa         State Program         7         374         03-01-15           Kansas         NELAP         7         E-10187         01-31-14           Kentucky         State Program         4         90029         12-31-13*           Kentucky (UST)         State Program         4         30         04-01-14           Louisiana         NELAP         6         02031         06-30-14           Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13*           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Prog	Georgia	State Program	4	N/A	03-31-14
Kansas         NELAP         7         E-10187         01-31-14           Kentucky         State Program         4         90029         12-31-13*           Kentucky (UST)         State Program         4         30         04-01-14           Louisiana         NELAP         6         02031         06-30-14           Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13*           New Hampshire         NELAP         1         2337         11-17-14           New Jork         NELAP         2         NY455         06-30-14           New York         NELAP         2         NY455         06-30-14           North Dakota         State Program         8         R-176         03-31-14           Orlahoma         State Program         6         9421         08-31-14           Oregon         NELAP <td>Illinois</td> <td>NELAP</td> <td>5</td> <td>200003</td> <td>09-30-14</td>	Illinois	NELAP	5	200003	09-30-14
Kentucky         State Program         4         90029         12-31-13 *           Kentucky (UST)         State Program         4         30         04-01-14           Louisiana         NELAP         6         02031         06-30-14           Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         NY455         06-30-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         8         R-176         03-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania	lowa	State Program	7	374	03-01-15
Kentucky (UST)         State Program         4         30         04-01-14           Louisiana         NELAP         6         02031         06-30-14           Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Olkahoma         State Program         6         9421         08-31-14           Oregon         NELAP </td <td>Kansas</td> <td>NELAP</td> <td>7</td> <td>E-10187</td> <td>01-31-14</td>	Kansas	NELAP	7	E-10187	01-31-14
Louisiana         NELAP         6         02031         06-30-14           Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         4         TN02970         04-01-14           Texas         NEL	Kentucky	State Program	4	90029	12-31-13 *
Maine         State Program         1         NY00044         12-04-14           Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas	Kentucky (UST)	State Program	4	30	04-01-14
Maryland         State Program         3         294         03-31-14           Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA	Louisiana	NELAP	6	02031	06-30-14
Massachusetts         State Program         1         M-NY044         06-30-14           Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Winginia         NELAP<	Maine	State Program	1	NY00044	12-04-14
Michigan         State Program         5         9937         04-01-14           Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Wirginia         NELAP         3         460185         09-14-14           Washington         State Program	Maryland	State Program	3	294	03-31-14
Minnesota         NELAP         5         036-999-337         12-31-13 *           New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LA000328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Virginia         NELAP         3         460185         09-14-14           Washington         State Program         10         C784         02-10-14           West Virginia DEP         State Pr	Massachusetts	State Program	1	M-NY044	06-30-14
New Hampshire         NELAP         1         2337         11-17-14           New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Virginia         NELAP         3         460185         09-14-14           Washington         State Program         10         C784         02-10-14           West Virginia DEP         State Program         3         252         12-31-13 *	Michigan	State Program	5	9937	04-01-14
New Jersey         NELAP         2         NY455         06-30-14           New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Virginia         NELAP         3         460185         09-14-14           Washington         State Program         10         C784         02-10-14           West Virginia DEP         State Program         3         252         12-31-13 *	Minnesota	NELAP	5	036-999-337	12-31-13 *
New York         NELAP         2         10026         04-01-14           North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Virginia         NELAP         3         460185         09-14-14           Washington         State Program         10         C784         02-10-14           West Virginia DEP         State Program         3         252         12-31-13 *	New Hampshire	NELAP	1	2337	11-17-14
North Dakota         State Program         8         R-176         03-31-14           Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Virginia         NELAP         3         460185         09-14-14           Washington         State Program         10         C784         02-10-14           West Virginia DEP         State Program         3         252         12-31-13 *	New Jersey	NELAP	2	NY455	06-30-14
Oklahoma         State Program         6         9421         08-31-14           Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LA000328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Virginia         NELAP         3         460185         09-14-14           Washington         State Program         10         C784         02-10-14           West Virginia DEP         State Program         3         252         12-31-13 *	New York	NELAP	2	10026	04-01-14
Oregon         NELAP         10         NY200003         06-09-14           Pennsylvania         NELAP         3         68-00281         07-31-14           Rhode Island         State Program         1         LAO00328         12-31-13 *           Tennessee         State Program         4         TN02970         04-01-14           Texas         NELAP         6         T104704412-11-2         07-31-14           USDA         Federal         P330-11-00386         11-22-14           Virginia         NELAP         3         460185         09-14-14           Washington         State Program         10         C784         02-10-14           West Virginia DEP         State Program         3         252         12-31-13 *	North Dakota	State Program	8	R-176	03-31-14
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	Washington	State Program	10	C784	02-10-14
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	Wisconsin	State Program	5	998310390	08-31-14

#### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13 *
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14 *
Kentucky (UST)	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *

 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

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# **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

#### Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14 *
West Virginia DEP	State Program	3	210	12-31-13 *
Wisconsin	State Program	5	999518190	08-31-14

<sup>\*</sup> Expired certification is currently pending renewal and is considered valid.

# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50846-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL CAN
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL BUF
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7471A	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL CAN
Moisture	Percent Moisture	EPA	TAL BUF

#### **Protocol References:**

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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## Sample Summary

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Water

Solid

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID

WCSS-61 (0-0.25)

WCSS-47 (0-0.25)

WCSS-60 (0-0.25)

WCSS-59 (0-0.25)

WCSS-54 (0-0.25)

WCSS-53 (0-0.25)

WCSS-52 (0-0.25)

WCSS-51 (0-0.25)

WCSS-49 (0-0.25)

WCSS-50 (0-0.25)

WCSS-58 (0-0.25)

WCSS-958 (0-0.25)

WCSS-56 (0-0.25)

WCSS-55 (0-0.25)

WCSS-57 (0-0.25)

WCSS-62 (0-0.25)

WCSS-63 (0-0.25)

WCSS-72(0-0.25)

WCEB-57 (0-0.25)

TB-11222013 (1)

Lab Sample ID

480-50846-1

480-50846-2

480-50846-3

480-50846-4

480-50846-5

480-50846-6

480-50846-7

480-50846-8

480-50846-9

480-50846-10

480-50846-11

480-50846-12

480-50846-13

480-50846-14

480-50846-15

480-50846-16

480-50846-17

480-50846-18

480-50846-19

480-50846-20

TestAmerica Job ID: 480-50846-1

Collected

11/22/13 07:50

11/22/13 08:00

11/22/13 08:10

11/22/13 08:25

11/22/13 08:35

11/22/13 08:50

11/22/13 09:00

11/22/13 09:10

11/22/13 09:20

11/22/13 09:30

11/22/13 09:40

11/22/13 09:40

11/22/13 10:00

11/22/13 10:05

11/22/13 10:15

11/22/13 10:35

11/22/13 10:40

11/22/13 10:50

11/22/13 11:15

11/22/13 12:00

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11/26/13 02:00	

11/26/13 02:00

# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-50846-1

Login Number: 50846 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Answer	Comment
True	
True	
True	
True	
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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

<u>TestAmerica</u>

Drinking Water? Yes□ No 1

THE LEADER IN ENVIRONMENTAL TESTING

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	Project Name and Location (State)  Quincy - Intercole  Contract/Purchase Order/Quote No.	rue) //	Cartie	r/Way	vbill Nu	ımber					Tel	V	25	(8260) (16. NEP					Spi	ecial li	nstruction	ns/
	Contract/Purchase Order/Quote No.				Má	atrix			Conta Prese	2-17 Fallberg.		040	XXX	カファ					Cor	ndition.	s of Rece	ipt
-	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.		Unpres. H2SO4	ниоз	HC/	NaOH ZnAc/ NaOH			でなる								
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	Comments																					

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy









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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

**TestAmerica** 

Drinking Water? Yes□ No∑

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THE LEADER IN ENVIRONMENTAL TESTING

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-50847-1 Client Project/Site: Quincy Inervale

For:

Woodard & Curran Inc 40 Shattuck Road Suite 110 Andover, Massachusetts 01810

Attn: Mr. Jarrod Yoder

Authorized for release by:

12/9/2013 1:45:54 PM

Steve Hartmann, Service Center Manager (413)572-4000

steve.hartmann@testamericainc.com

Designee for

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

Links

results through
Total Access

**Review your project** 

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

#### **GC Semi VOA**

Qualifier	Qualifier Description
X	Surrogate is outside control limits
В	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

#### **Metals**

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.
F	MS/MSD Recovery and/or RPD exceeds the control limits

## **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit

EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)
PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Buffalo

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#### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Job ID: 480-50847-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-50847-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 11/26/2013 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.4° C, 2.7° C and 3.3° C.

The following samples were preserved by the client via freezing on 11/22/2013 at 20:00: TB-11222013 (2) (480-50847-27), WCSB-12 (2.5-3) (480-50847-22), WCSB-14 (7-8) (480-50847-19), WCSB-15 (0.5-1.5) (480-50847-16), WCSB-16 (6-7) (480-50847-15), WCSB-20 (16-17) (480-50847-2). This is within the 48 hour timeframe required by the method.

#### GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) for Chloroethane and/or Dichlorodifluoromethane associated with batch 154424 and 154695 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method(s) 8260C: The laboratory control sample (LCS) for batch 154424 and 154701 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample.

Method(s) 8260C: The following sample was analyzed medium level to bring the concentration of target analytes within the calibration range: WCSB-4 (1-2) (480-50847-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: Surrogate recovery for the following sample(s) was outside control limits: WCSB-4 (1-2) (480-50847-3). Re-analysis was performed with concurring results. The original analysis has been reported.

With the exception of diluted samples and adjustments made for % solids or insufficient sample mass, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-Dibromo-3-Chloropropane, Naphthalene, & Tetrahydrofuran.

No other analytical or quality issues were noted.

#### GC Semi VOA

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WCSB-20 (14-15) (480-50847-1), WCSB-19 (2.5-3) (480-50847-9), WCSB-21 (2.5-3) (480-50847-7), EXS047040 (480-50647-4), EXS047040MS (480-50647-4 MS), EXS047040MSD (480-50647-4 MSD), WCSB-13 (2.5-3) (480-50847-20), WCSB-15 (2.5-3) (480-50847-17), WCSB-7 (7-8) (480-50847-26). Lot # S65830

Method(s) 8082: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 111693 recovered outside control limits for the following analytes: 1260 on the confirmation column. the LCS/LCSD were still in control, no corrective action was required.

Method(s) MA-EPH: The laboratory control sample (LCS) (LCS 480-155085/2-B) recovered slightly outside control limits for Napthalene. The Laboratory control sample duplicate (LCSD) recoveries are compliant and all other QC parameters are within limits.

No other analytical or quality issues were noted.

#### Metals

Method(s) 6010: The Method Blank for batch 480-154525 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples WCSB-11 (6-7) (480-50847-25), WCSB-4 (7-8) (480-50847-4), WCSB-7 (7-8) (480-50847-26) was not performed.

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#### **Case Narrative**

TestAmerica Job ID: 480-50847-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Job ID: 480-50847-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 6010: The Matrix Spike/ Matrix Spike Duplicate (MS/MSD) recoveries for chromium, antimony, and zinc in batch 480-154525 were outside control limits. The associated Laboratory Control Sample (LCSSRM) recovery met acceptance criteria, therefore no corrective action was necessary.

Method(s) 6010: The following sample(s) was diluted for silver due to the nature of the sample matrix: WCSB-11 (6-7) (480-50847-25), WCSB-11 (6-7) MS (480-50847-25 MS), WCSB-11 (6-7) MSD (480-50847-25 MSD). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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				Mas	sDEP Ana	llytica	l Protocol C	erti	ification Form			
Laboi	ratory N	ame:	Test	Amer	ica Buffalo		Projec	t #:	480-508	347		
	ect Loca		Qı	iincy	Inervale		R	TN:				
This f	form pr	ovide	s certification	ns foi	the followi	ng data	a set: list Labo	rato	ory Sample ID Number(s):			
480-5	0847-[1	-27]										
Matric	es:		Groundwater/	Surfa	ce Water	X	Soil/Sediment		Drinking Water  Air	<u> </u>	her:	
		cols (	check all th									
8260			7470/7471 H		Mass DEP	VPH	8081 Pesticide	s	7196 Hex Cr	Mass DEF		1
CAM		Χ	CAM III B	Χ	CAM IV A		CAM V B	<u> </u>	CAM VI B	CAM IX A		
8270 ·	SVOC	$\neg$	7010 Metals CAM III C	$\Box$	Mass DEP CAM IV B	EPH X	8151 Herbicide	es T	8330 Explosives CAM VIII A	TO-15 VC		$\vdash$
CAIVI	по		CAW III C		CAWITY B		9012 / 9014/ 4500	<u> </u>	CAIVI VIII A	CAWIA		
6010	Metals		6020 Metals		8082 PCB		Total Cyanide/PA		6860 Perchlorate			
CAM	III A	Χ	CAM III D		CAM V A	Χ	CAM VI A		CAM VIII B			
	Affirma	ative F	Responses to	Que	stions A th	rough F	are required f	or '	'Presumptive Certainty" st	atus		
	Were a	all sam	ples received	in a	condition co	nsistent	with those desc	ribe	ed on the Chain-of-Custody,			
Α			•	ng tei	mperature) i	n the fie	eld or laboratory	an	d prepared/analyzed within			
	1		ng time.	1/->-			<u> </u>		-1°-1'-11-1-1-1-1-1-1-1-1-1-1-1	XYes		No
В	protoco	ol(s) fo	ollowed?	. ,					ecified in the selected CAM	XYes		No
С							esponse actions ce standard non		ecified in the selected CAM nformances?	XYes		No
	Does th	ne lab	oratory report	comp	ly with all th	e report	ing requirement	S S	pecified in CAM VII A,			
D		y Assı	ırance and Qı	ality	Control Guid	lelines f	or the Acquisition	n a	nd Reporting of Analytical			
	Data"?	EDL	and ADU Ma	thodo	only: Was a	oob me	athed conducted	va di f	hout significant	X Yes	<u> </u>	No
Е									nt modifications).	X Yes	Ш	No
			, ,			. ,	-		ed for each method?	Yes		No
F	Were a	all app	licable CAM p	rotoc	ol QC and p	erforma	nce standard no	on-c	conformances identified and			
					`				stions A through E)?	X Yes	Ш	No
							-		sumptive Certainty" statu	S T		
G	Were the protocol		orting limits a	t or b	elow all CAN	1 report	ing limits specifi	ed i	n the selected CAM	Yes	X	No <sup>1</sup>
					•	-	-		cessarily meet the data usab	ility and		
H			-				1056 (2)(k) and				Х	No <sup>1</sup>
			•				e CAM protocol			Yes		
1 All n			<u> </u>				pecified in the s		cted CAM protocol(s) ?	X Yes		No <sup>1</sup>
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obtair		inforn	nation, the ma						pon my personal inquiry of the best of my knowledge and		IISIDIE	eior
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Signa	ture:	,	20~	$\angle a$	Mus		Posit	ion:	Service Center Manager/Lab Dire	ector-TestAme	erica W	estfield/
Printe	d Name	e:	Stev	en C.	Hartmann		D	ate:	12/9/13 1	3:33		
This forn	n has been	electron	ically signed and ap	proved								

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-20 (14-15)

Lab Sample ID: 480-50847-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	47.4		19.2	9.92	mg/Kg	500	₩	8082	Total/NA
Acenaphthene	3.86		0.580	0.0939	mg/Kg	1	₩	MA-EPH	Total/NA
Acenaphthylene	3.90		0.580	0.104	mg/Kg	1	₽	MA-EPH	Total/NA
Anthracene	7.75		0.580	0.110	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene	7.27		0.580	0.0881	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	5.81		0.580	0.0835	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[b]fluoranthene	6.40		0.580	0.0823	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	2.38		0.580	0.0986	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene	4.12		0.580	0.0847	mg/Kg	1	₩	MA-EPH	Total/NA
2-Methylnaphthalene	4.50		0.580	0.114	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	10.3		0.580	0.103	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	2.18	В	0.580	0.0812	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	18.7		0.580	0.102	mg/Kg	1	₽	MA-EPH	Total/NA
Fluorene	7.08		0.580	0.116	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	2.70	В	0.580	0.0847	mg/Kg	1	₩	MA-EPH	Total/NA
Naphthalene	0.760		0.580	0.0974	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene	16.2		0.580	0.116	mg/Kg	1	₩	MA-EPH	Total/NA
Pyrene	12.6		0.580	0.106	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	721		5.80	2.32	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	283		5.80	2.32	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	193		5.80	2.32	mg/Kg	1	₩	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	605		5.87	5.87	mg/Kg	1	₩	MA-EPH	Total/NA

Client Sample ID: WCSB-4 (1-2)

Lab Sample ID: 480-50847-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.0579		0.00300	0.00115	mg/Kg	1	₩	8260C	Total/NA
1,3,5-Trimethylbenzene	0.0168		0.00300	0.000387	mg/Kg	1	₽	8260C	Total/NA
2-Butanone (MEK)	0.0712	*	0.0300	0.00220	mg/Kg	1	₽	8260C	Total/NA
4-Methyl-2-pentanone (MIBK)	0.0664		0.0300	0.00197	mg/Kg	1	₽	8260C	Total/NA
Acetone	0.0723	J	0.300	0.00506	mg/Kg	1	₽	8260C	Total/NA
Benzene	0.00380		0.00300	0.000294	mg/Kg	1	₽	8260C	Total/NA
Isopropylbenzene	0.00713		0.00300	0.000906	mg/Kg	1	₩	8260C	Total/NA
N-Propylbenzene	0.0111		0.00300	0.000481	mg/Kg	1	₽	8260C	Total/NA
Trichlorofluoromethane	0.00288	J	0.00601	0.000568	mg/Kg	1	₽	8260C	Total/NA
Ethylbenzene - DL	0.322		0.0712	0.00982	mg/Kg	1	₩	8260C	Total/NA
m-Xylene & p-Xylene - DL	1.43		0.142	0.0239	mg/Kg	1	₽	8260C	Total/NA
o-Xylene - DL	0.531		0.0712	0.0186	mg/Kg	1	₽	8260C	Total/NA
Toluene - DL	1.11		0.0712	0.0108	mg/Kg	1	₩.	8260C	Total/NA

Client Sample ID: WCSB-4 (7-8)

Lab Sample ID: 480-50847-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	10.4		0.592	0.130	mg/Kg		₩	6010	Total/NA
Beryllium	0.0806	J	0.237	0.0332	mg/Kg	1	₽	6010	Total/NA
Chromium	4.02		0.592	0.237	mg/Kg	1	₩	6010	Total/NA
Nickel	3.00		1.18	0.273	mg/Kg	1	₽	6010	Total/NA
Vanadium	5.44		0.592	0.130	mg/Kg	1	₩	6010	Total/NA
Zinc	10.4	В	2.96	0.181	mg/Kg	1	₽	6010	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-4 (7-8) (Continued)

Lab Sample ID: 480-50847-4

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
Lead	2.05	0.592	0.284 mg/Kg	1 🛱 6010	Total/NA

Client Sample ID: WCSB-22 (2.5-3)

Lab Sample ID: 480-50847-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	27.5		3.61	1.86	mg/Kg	100	₩	8082	Total/NA
Anthracene	0.232	J	0.518	0.0984	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]anthracene	1.99		0.518	0.0787	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]pyrene	2.41		0.518	0.0746	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	3.94		0.518	0.0735	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[g,h,i]perylene	1.43		0.518	0.0881	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.54		0.518	0.0756	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	2.37		0.518	0.0922	mg/Kg	1	₩	MA-EPH	Total/NA
Dibenz(a,h)anthracene	0.760	В	0.518	0.0725	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	2.20		0.518	0.0912	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	1.52	В	0.518	0.0756	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.732		0.518	0.104	mg/Kg	1	₩	MA-EPH	Total/NA
Pyrene	3.24		0.518	0.0943	mg/Kg	1	₩.	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	80.9		5.18	2.07	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	66.0		5.18	2.07	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	3.64	J	5.18	2.07	mg/Kg	1	₽	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	58.6		5.52	5.52	mg/Kg		₩	MA-EPH	Total/NA

Client Sample ID: WCSB-21 (2.5-3)

Lab Sample ID: 480-50847-7

No Detections.

Client Sample ID: WCSB-19 (2.5-3)

Lab Sample ID: 480-50847-9

Analyte	Result Qua	alifier RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.221 JB	0.535	0.0910	mg/Kg	1	₩	MA-EPH	Total/NA
Dibenz(a,h)anthracene	0.124 JB	0.535	0.0749	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	0.163 JB	0.535	0.0781	mg/Kg	1	₽	MA-EPH	Total/NA

Client Sample ID: WCSB-18 (2.5-3)

Lab Sample ID: 480-50847-11

Analyte	Result Qualifier	RL MD	L Unit	Dil Fac D	Method	Prep Type
PCB-1260	69.4	18.1 9.3	4 ma/Ka	500	8082	Total/NA

Client Sample ID: WCSB-17 (2.5-3)

Lab Sample ID: 480-50847-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	395		35.8	18.4	mg/Kg	1000	₩	8082	Total/NA
Anthracene	0.135	J	0.536	0.102	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]anthracene	0.476	J	0.536	0.0815	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	1.08		0.536	0.0772	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	2.16		0.536	0.0761	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	0.737		0.536	0.0954	mg/Kg	1	₩	MA-EPH	Total/NA
Dibenz(a,h)anthracene	1.84	В	0.536	0.0750	mg/Kg	1	₩.	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-17 (2.5-3) (Continued)

Lab Sample ID: 480-50847-13

Analyte	Result C	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	2.26		0.536	0.0943	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene	0.407 J	J	0.536	0.107	mg/Kg	1	₩	MA-EPH	Total/NA
Pyrene	0.616		0.536	0.0975	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	112		5.36	2.14	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	256		5.36	2.14	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	30.9		5.36	2.14	mg/Kg	1	₩	MA-EPH	Total/NA
Analyte	Result C	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	102		5.43	5.43	mg/Kg	1	₩	MA-EPH	Total/NA

Client Sample ID: WCSB-16 (6-7)

Lab Sample ID: 480-50847-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0118	J	0.304	0.00511	mg/Kg		₩	8260C	Total/NA
Carbon disulfide	0.00530		0.00304	0.00304	mg/Kg	1	₩	8260C	Total/NA
Ethylbenzene	0.000619	J	0.00304	0.000419	mg/Kg	1	₩	8260C	Total/NA
Methyl tert-butyl ether	0.00268	J	0.00304	0.000596	mg/Kg	1	₽	8260C	Total/NA
m-Xylene & p-Xylene	0.00249	J	0.00607	0.00102	mg/Kg	1	₩	8260C	Total/NA

**Client Sample ID: WCSB-15 (0.5-1.5)** 

Lab Sample ID: 480-50847-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0113	J	0.238	0.00401	mg/Kg	1	₩	8260C	Total/NA
Ethylbenzene	0.00608		0.00238	0.000328	mg/Kg	1	₩	8260C	Total/NA
m-Xylene & p-Xylene	0.0175		0.00476	0.000800	mg/Kg	1	₽	8260C	Total/NA
Naphthalene	0.00296	J	0.0238	0.000638	mg/Kg	1	₩	8260C	Total/NA
o-Xylene	0.00660		0.00238	0.000622	mg/Kg	1	₩	8260C	Total/NA
Tetrachloroethene	0.0137		0.00238	0.000639	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.137		0.00238	0.000360	ma/Ka	1	₩.	8260C	Total/NA

Client Sample ID: WCSB-15 (2.5-3)

Lab Sample ID: 480-50847-17

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type
PCB-1260	1.32	0.374	0.193 mg/Kg	10	<sup>‡</sup> 8082	Total/NA

Client Sample ID: WCSB-14 (7-8)

Lab Sample ID: 480-50847-19

 Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.00989	J	0.219	0.00369	mg/Kg	1	₩	8260C	Total/NA
Ethylbenzene	0.00167	J	0.00219	0.000303	mg/Kg	1	₩	8260C	Total/NA
m-Xylene & p-Xylene	0.00581		0.00439	0.000737	mg/Kg	1	₽	8260C	Total/NA
o-Xylene	0.00244		0.00219	0.000573	mg/Kg	1	₩	8260C	Total/NA
Tetrachloroethene	0.0266		0.00219	0.000589	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.0104		0.00219	0.000332	mg/Kg	1	₽	8260C	Total/NA
Trichloroethene	0.00206	J	0.00219	0.000965	mg/Kg	1	₽	8260C	Total/NA
Anthracene	0.283	J	0.487	0.0925	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	0.131	J	0.487	0.0701	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[b]fluoranthene	0.0714	J	0.487	0.0691	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	0.469	J	0.487	0.0857	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.494		0.487	0.0974	mg/Kg	1	₩	MA-EPH	Total/NA
Pyrene	0.361	J	0.487	0.0886	mg/Kg	1	₩.	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

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## Client Sample ID: WCSB-14 (7-8) (Continued)

Lab Sample ID: 480-50847-19

Analyte	Result Qu	ualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	32.8		4.87	1.95	mg/Kg	1	#	MA-EPH	Total/NA
C19-C36 Aliphatics	35.2		4.87	1.95	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	45.3		4.87	1.95	mg/Kg	1	₩	MA-EPH	Total/NA
Analyte	Result Qu	ualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	31.0		5.25	5.25	mg/Kg	1	₩	MA-EPH	Total/NA

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### Client Sample ID: WCSB-13 (2.5-3)

Lab Sample ID: 480-50847-20

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
PCB-1260	0.480	0.192	0.0990 mg/Kg	5 🌣	8082	Total/NA

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## Client Sample ID: WCSB-12 (2.5-3)

Lab Sample ID: 480-50847-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.0341	J	0.258	0.00435	mg/Kg	1	₩	8260C	Total/NA
Ethylbenzene	0.00606		0.00258	0.000356	mg/Kg	1	₩	8260C	Total/NA
m-Xylene & p-Xylene	0.0203		0.00516	0.000867	mg/Kg	1	₩	8260C	Total/NA
o-Xylene	0.00738		0.00258	0.000674	mg/Kg	1	₽	8260C	Total/NA
Tetrachloroethene	0.132		0.00258	0.000693	mg/Kg	1	₩	8260C	Total/NA
Toluene	0.0866		0.00258	0.000390	mg/Kg	1	₩	8260C	Total/NA
Trichloroethene	0.00476		0.00258	0.00114	mg/Kg	1	₩	8260C	Total/NA
PCB-1242	1220		375	148	mg/Kg	10000	₩	8082	Total/NA

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#### Client Sample ID: WCSB-912 (2.5-3)

Lab Sample ID: 480-50847-24

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2300	378	149 mg/Kg	10000	₩	8082	Total/NA

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#### Client Sample ID: WCSB-11 (6-7)

Lab Sample ID: 480-50847-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.67		1.09	0.435	mg/Kg	1	₩	6010	Total/NA
Barium	24.1		0.544	0.120	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.368		0.218	0.0305	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.249		0.218	0.0326	mg/Kg	1	₽	6010	Total/NA
Chromium	7.16		0.544	0.218	mg/Kg	1	₩	6010	Total/NA
Nickel	8.01		1.09	0.250	mg/Kg	1	₽	6010	Total/NA
Vanadium	5.68		0.544	0.120	mg/Kg	1	₽	6010	Total/NA
Zinc	88.3	В	2.72	0.166	mg/Kg	1	₩	6010	Total/NA
Lead	18.2		0.544	0.261	mg/Kg	1	₩	6010	Total/NA
Mercury	0.0158	J	0.0976	0.00791	mg/Kg	1	φ.	7471A	Total/NA

Client Sample ID: WCSB-7 (7-8)

Lab Sample ID: 480-50847-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.0258	J	0.0374	0.0147	mg/Kg		₩	8082	Total/NA
Arsenic	1.79		1.12	0.449	mg/Kg	1	₽	6010	Total/NA
Barium	14.1		0.561	0.123	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.263		0.225	0.0314	mg/Kg	1	₩	6010	Total/NA
Chromium	6.36		0.561	0.225	mg/Kg	1	₩	6010	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-26

Client Sample ID	: WCSB-7 (7-8)	(Continued)
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	7.15		1.12	0.258	mg/Kg	1	₩	6010	Total/NA
Vanadium	13.8		0.561	0.123	mg/Kg	1	₩	6010	Total/NA
Zinc	43.0	В	2.81	0.172	mg/Kg	1	₩	6010	Total/NA
Lead	7.65		0.561	0.269	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0133	J	0.108	0.00874	mg/Kg	1	₽	7471A	Total/NA

Client Sample ID: TB-11222013 (2) Lab Sample ID: 480-50847-27

No Detections.

10

12

13

14

## **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 12:15

Chrysene

**Fluorene** 

**Pyrene** 

Analyte

Fluoranthene

Naphthalene

**Phenanthrene** 

C19-C36 Aliphatics

**C9-C18 Aliphatics** 

Dibenz(a,h)anthracene

Indeno[1,2,3-cd]pyrene

C11-C22 Aromatics (unadjusted)

C11-C22 Aromatics (Adjusted)

Client Sample ID: WCSB-20 (14-15)

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-1

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

11/26/13 10:37

Prepared

₩

D

₩

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

11/29/13 17:51

Analyzed

12/03/13 12:12

Dil Fac

**Matrix: Solid** 

	Dil Fac	5
2	500	
2	500	6
2	500	

Pate Received: 11/26/13 02:00								Percent Soli	ds: 85.1
Method: 8082 - Polychlorinate Analyte		(ECD) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
PCB-1016	<19.2	·	19.2	12.2	mg/Kg	<u></u>	11/29/13 07:58	12/05/13 12:42	50
PCB-1221	<19.2		19.2	9.33	mg/Kg	₽	11/29/13 07:58	12/05/13 12:42	50
PCB-1232	<19.2		19.2	8.17	mg/Kg	₽	11/29/13 07:58	12/05/13 12:42	500
PCB-1242	<19.2		19.2	7.58	mg/Kg		11/29/13 07:58	12/05/13 12:42	500
PCB-1248	<19.2		19.2	9.92	mg/Kg	₽	11/29/13 07:58	12/05/13 12:42	500
PCB-1254	<19.2		19.2	9.92	mg/Kg	₽	11/29/13 07:58	12/05/13 12:42	500
PCB-1260	47.4		19.2	9.92	mg/Kg		11/29/13 07:58	12/05/13 12:42	500
PCB-1262	<19.2		19.2	15.7	mg/Kg	₽	11/29/13 07:58	12/05/13 12:42	500
PCB-1268	<19.2		19.2	8.17	mg/Kg	₽	11/29/13 07:58	12/05/13 12:42	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	23293	X	30 - 150				11/29/13 07:58	12/05/13 12:42	500
Tetrachloro-m-xylene	5384	X	30 - 150				11/29/13 07:58	12/05/13 12:42	500
DCB Decachlorobiphenyl	17635	Χ	30 - 150				11/29/13 07:58	12/05/13 12:42	50
DCB Decachlorobiphenyl	12695	X	30 - 150				11/29/13 07:58	12/05/13 12:42	50
- Method: MA-EPH - Massachu			•						
Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
Acenaphthene	3.86		0.580	0.0939	mg/Kg	₽	11/26/13 10:37	11/29/13 17:51	•
Acenaphthylene									
	3.90		0.580	0.104	mg/Kg	₩	11/26/13 10:37	11/29/13 17:51	•
Anthracene	3.90 7.75		0.580 0.580		mg/Kg mg/Kg	<b>\$</b>	11/26/13 10:37 11/26/13 10:37	11/29/13 17:51 11/29/13 17:51	
Anthracene Benzo[a]anthracene					mg/Kg				
	7.75		0.580	0.110	mg/Kg mg/Kg		11/26/13 10:37	11/29/13 17:51	
Benzo[a]anthracene	7.75 7.27		0.580 0.580	0.110 0.0881	mg/Kg mg/Kg mg/Kg	<b>\$</b>	11/26/13 10:37 11/26/13 10:37	11/29/13 17:51 11/29/13 17:51	
Benzo[a]anthracene Benzo[a]pyrene	7.75 7.27 5.81		0.580 0.580 0.580	0.110 0.0881 0.0835	mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$	11/26/13 10:37 11/26/13 10:37 11/26/13 10:37	11/29/13 17:51 11/29/13 17:51 11/29/13 17:51	
Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene	7.75 7.27 5.81 6.40		0.580 0.580 0.580 0.580	0.110 0.0881 0.0835 0.0823	mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$ \$	11/26/13 10:37 11/26/13 10:37 11/26/13 10:37 11/26/13 10:37	11/29/13 17:51 11/29/13 17:51 11/29/13 17:51 11/29/13 17:51	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	35	X	40 - 140	11/26/13 10:37	11/29/13 17:51	1
2-Bromonaphthalene	102		40 - 140	11/26/13 10:37	11/29/13 17:51	1
2-Fluorobiphenyl	100		40 - 140	11/26/13 10:37	11/29/13 17:51	1
o-Terphenyl	37	X	40 - 140	11/26/13 10:37	11/29/13 17:51	1

0.580

0.580

0.580

0.580

0.580

0.580

0.580

0.580

5.80

5.80

5.80

RL

5.87

10.3

18.7

7.08

0.760

16.2

12.6 721

283

193

605

Result Qualifier

2.18 B

2.70 B

0.103 mg/Kg

0.0812 mg/Kg

0.102 mg/Kg

0.116 mg/Kg

0.0847 mg/Kg

0.0974 mg/Kg

0.116 mg/Kg

0.106 mg/Kg

2.32 mg/Kg

2.32 mg/Kg

2.32 mg/Kg

RL Unit

5.87 mg/Kg

# **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-3

Matrix: Solid

Percent Solids: 90.3

Client Sample	ID: WCSB-4	1 (1-2)
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Date Collected: 11/22/13 13:05 Date Received: 11/26/13 02:00

Analyte	c Compounds (GC Result Qua	ıalifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00300	0.00300	0.000601	mg/Kg	— <del>-</del>	11/26/13 10:30	11/26/13 16:47	
1,1,1-Trichloroethane	<0.00300	0.00300	0.000436	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	
1,1,2,2-Tetrachloroethane	<0.00300	0.00300	0.000974	mg/Kg	≎	11/26/13 10:30	11/26/13 16:47	
1,1,2-Trichloroethane	<0.00300	0.00300	0.000781	mg/Kg		11/26/13 10:30	11/26/13 16:47	
1,1-Dichloroethane	<0.00300	0.00300	0.000733		≎	11/26/13 10:30	11/26/13 16:47	
1.1-Dichloroethene	<0.00300	0.00300	0.000735		≎	11/26/13 10:30	11/26/13 16:47	
1,1-Dichloropropene	<0.00300	0.00300	0.000853			11/26/13 10:30	11/26/13 16:47	
1,2,3-Trichlorobenzene	<0.00300	0.00300	0.000638		≎	11/26/13 10:30	11/26/13 16:47	
1,2,3-Trichloropropane	< 0.00300	0.00300	0.000612		₩	11/26/13 10:30	11/26/13 16:47	
1,2,4-Trichlorobenzene	<0.00300	0.00300	0.000365			11/26/13 10:30	11/26/13 16:47	
1,2,4-Trimethylbenzene	0.0579	0.00300	0.00115		₩	11/26/13 10:30	11/26/13 16:47	
1,2-Dibromo-3-Chloropropane	<0.0300	0.0300	0.00300	mg/Kg	₩	11/26/13 10:30	11/26/13 16:47	
1,2-Dichlorobenzene	<0.00300	0.00300	0.000470			11/26/13 10:30	11/26/13 16:47	
1,2-Dichloroethane	<0.00300	0.00300	0.000302	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	
1,2-Dichloropropane	<0.00300	0.00300	0.00302	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	
1,3,5-Trimethylbenzene	0.0168	0.00300	0.000387	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 16:47	
1,3-Dichlorobenzene	<0.00300	0.00300	0.000309	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	
1,3-Dichloropropane	<0.00300	0.00300	0.000360	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	
1,4-Dichlorobenzene	<0.00300	0.00300	0.000300	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 16:47	
1,4-Dioxane	<0.300	0.300	0.0290	mg/Kg		11/26/13 10:30	11/26/13 16:47	
2,2-Dichloropropane	<0.00300	0.00300	0.00102		₩	11/26/13 10:30	11/26/13 16:47	
	0.0712 *	0.0300	0.00102	mg/Kg		11/26/13 10:30	11/26/13 16:47	
2-Butanone (MEK) 2-Chlorotoluene	<0.00300	0.00300	0.00220	mg/Kg	₩.	11/26/13 10:30	11/26/13 16:47	
2-Hexanone	<0.0300	0.0300	0.000394	mg/Kg	₩	11/26/13 10:30	11/26/13 16:47	
4-Chlorotoluene	<0.0300	0.0300	0.00300	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 16:47	
4-Isopropyltoluene	<0.00300	0.00300	0.000709	mg/Kg	₩.	11/26/13 10:30	11/26/13 16:47	
	0.0664	0.0300	0.000482		₩	11/26/13 10:30	11/26/13 16:47	
4-Methyl-2-pentanone (MIBK)		0.300	0.00197		· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 16:47	
Acetone	0.0723 J	0.00300	0.00300	mg/Kg mg/Kg		11/26/13 10:30	11/26/13 16:47	
Benzene Bromobenzene	<b>0.00380</b> <0.00300	0.00300	0.000294	mg/Kg	₩	11/26/13 10:30	11/26/13 16:47	
Bromoform	<0.00300	0.00300	0.00300	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 16:47	
Bromomethane	<0.00601	0.00500	0.00500	mg/Kg	₩.	11/26/13 10:30	11/26/13 16:47	
Carbon disulfide	<0.00300	0.00300				11/26/13 10:30	11/26/13 16:47	
Carbon tetrachloride			0.00300				11/26/13 16:47	
	<0.00300	0.00300				11/26/13 10:30		
Chlorobenzene	<0.00300	0.00300	0.000793		₩	11/26/13 10:30	11/26/13 16:47	
Chlorobromomethane Chlorodibromomethane	<0.00300	0.00300 0.00300	0.000434			11/26/13 10:30 11/26/13 10:30	11/26/13 16:47	
					Ψ.		11/26/13 16:47	
Chloroform	<0.00601	0.00601	0.00136		₩	11/26/13 10:30	11/26/13 16:47	
Chloroform	<0.00300	0.00300		mg/Kg		11/26/13 10:30	11/26/13 16:47	
Chloromethane	<0.00601	0.00601	0.000363		. A	11/26/13 10:30	11/26/13 16:47	
cis-1,2-Dichloroethene	<0.00300	0.00300	0.000769		. A	11/26/13 10:30	11/26/13 16:47	
cis-1,3-Dichloropropene	<0.00300	0.00300	0.000865		<del></del>	11/26/13 10:30	11/26/13 16:47	
Dichlorobromomethane	<0.00300	0.00300	0.000805		Ti	11/26/13 10:30	11/26/13 16:47	
Dichlorodifluoromethane	<0.00601	0.00601	0.000496		<b>#</b>	11/26/13 10:30	11/26/13 16:47	
Ethyl ether	<0.00300	0.00300	0.00252		<u></u>	11/26/13 10:30	11/26/13 16:47	
Ethylene Dibromide	<0.00300	0.00300		mg/Kg	*	11/26/13 10:30	11/26/13 16:47	
Hexachlorobutadiene	<0.00300	0.00300	0.000704		*	11/26/13 10:30	11/26/13 16:47	
Isopropyl ether Isopropylbenzene	<0.00300 <b>0.00713</b>	0.00300 0.00300	0.00300		 	11/26/13 10:30 11/26/13 10:30	11/26/13 16:47 11/26/13 16:47	

3

5

7

9

11

13

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-4 (1-2)

Lab Sample ID: 480-50847-3 Date Collected: 11/22/13 13:05 Matrix: Solid Date Received: 11/26/13 02:00

Percent Solids: 90.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	<0.00300		0.00300	0.000590	mg/Kg	<u></u>	11/26/13 10:30	11/26/13 16:47	1
Methylene Chloride	<0.00300		0.00300	0.00276	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
Naphthalene	<0.0300		0.0300	0.000805	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
n-Butylbenzene	<0.00300		0.00300	0.000523	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
N-Propylbenzene	0.0111		0.00300	0.000481	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
sec-Butylbenzene	<0.00300		0.00300	0.000523	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
Styrene	<0.00300		0.00300	0.000300	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
Tert-amyl methyl ether	<0.00300		0.00300	0.00154	mg/Kg	₩	11/26/13 10:30	11/26/13 16:47	1
Tert-butyl ethyl ether	<0.00300		0.00300	0.00264	mg/Kg		11/26/13 10:30	11/26/13 16:47	1
tert-Butylbenzene	<0.00300		0.00300	0.000625	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
Tetrachloroethene	<0.00300		0.00300	0.000806	mg/Kg	₩	11/26/13 10:30	11/26/13 16:47	1
Tetrahydrofuran	<0.0601		0.0601	0.00553	mg/Kg	₩.	11/26/13 10:30	11/26/13 16:47	1
trans-1,2-Dichloroethene	<0.00300		0.00300	0.000620	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
trans-1,3-Dichloropropene	<0.00300		0.00300	0.00264	mg/Kg	₩	11/26/13 10:30	11/26/13 16:47	1
Trichloroethene	<0.00300		0.00300	0.00132	mg/Kg		11/26/13 10:30	11/26/13 16:47	1
Trichlorofluoromethane	0.00288	J	0.00601	0.000568	mg/Kg	₽	11/26/13 10:30	11/26/13 16:47	1
Vinyl chloride	<0.00300		0.00300	0.000733	mg/Kg	₩	11/26/13 10:30	11/26/13 16:47	1
Dibromomethane	<0.00300		0.00300	0.000619	mg/Kg	\$	11/26/13 10:30	11/26/13 16:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	123		70 - 130				11/26/13 10:30	11/26/13 16:47	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 130				11/26/13 10:30	11/26/13 16:47	1
4-Bromofluorobenzene (Surr)	127		70 - 130				11/26/13 10:30	11/26/13 16:47	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.322		0.0712	0.00982	mg/Kg	\$	11/27/13 11:06	11/27/13 19:46	1
m-Xylene & p-Xylene	1.43		0.142	0.0239	mg/Kg	₽	11/27/13 11:06	11/27/13 19:46	1
o-Xylene	0.531		0.0712	0.0186	mg/Kg	₩	11/27/13 11:06	11/27/13 19:46	1
Toluene	1.11		0.0712	0.0108	mg/Kg	*	11/27/13 11:06	11/27/13 19:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	61	X	70 - 130				11/27/13 11:06	11/27/13 19:46	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130				11/27/13 11:06	11/27/13 19:46	1
4-Bromofluorobenzene (Surr)	55	X	70 - 130				11/27/13 11:06	11/27/13 19:46	1

Client Sample ID: WCSB-4 (7-8) Lab Sample ID: 480-50847-4

Date Collected: 11/22/13 13:10 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 80.0

Method: 6010 - Metals (ICP	)								
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.592		0.592	0.237	mg/Kg	<del>\</del>	11/27/13 15:15	11/30/13 19:58	1
Arsenic	<1.18		1.18	0.474	mg/Kg	₽	11/27/13 15:15	11/30/13 19:58	1
Barium	10.4		0.592	0.130	mg/Kg	₽	11/27/13 15:15	11/30/13 19:58	1
Beryllium	0.0806 J	J	0.237	0.0332	mg/Kg	₽	11/27/13 15:15	11/30/13 19:58	1
Cadmium	<0.237		0.237	0.0355	mg/Kg	₩	11/27/13 15:15	11/30/13 19:58	1
Chromium	4.02		0.592	0.237	mg/Kg	₩	11/27/13 15:15	11/30/13 19:58	1
Nickel	3.00		1.18	0.273	mg/Kg	\$	11/27/13 15:15	11/30/13 19:58	1
Thallium	<1.18		1.18	0.355	mg/Kg	₩	11/27/13 15:15	11/30/13 19:58	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Client Sample ID: WCSB-4 (7-8)

Lab Sample ID: 480-50847-4 Date Collected: 11/22/13 13:10 Matrix: Solid

Percent Solids: 80.0

Date Received: 11/26/13 02:00
Method: 6010 - Metals (ICP) (Continued)

ntinued)							
Result Qual	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
5.44	0.592	0.130	mg/Kg	<del>-</del>	11/27/13 15:15	11/30/13 19:58	1
10.4 B	2.96	0.181	mg/Kg	₽	11/27/13 15:15	11/30/13 19:58	1
2.05	0.592	0.284	mg/Kg	₩	11/27/13 15:15	11/30/13 19:58	1
<0.592	0.592	0.474	mg/Kg	₩	11/27/13 15:15	11/30/13 19:58	1
<0.592	0.592	0.474	mg/Kg	*	11/27/13 15:15	11/30/13 19:58	1
	Result Qual 5.44  10.4 B 2.05 <0.592	Result         Qualifier         RL           5.44         0.592           10.4         B         2.96           2.05         0.592           <0.592	Result         Qualifier         RL         MDL           5.44         0.592         0.130           10.4         B         2.96         0.181           2.05         0.592         0.284           <0.592	Result         Qualifier         RL         MDL         Unit           5.44         0.592         0.130         mg/Kg           10.4         B         2.96         0.181         mg/Kg           2.05         0.592         0.284         mg/Kg           <0.592	Result         Qualifier         RL         MDL         Unit         D           5.44         0.592         0.130         mg/Kg         **           10.4         B         2.96         0.181         mg/Kg         **           2.05         0.592         0.284         mg/Kg         **           <0.592	Result         Qualifier         RL         MDL unit         D         Prepared           5.44         0.592         0.130 mg/Kg         * 11/27/13 15:15           10.4 B         2.96         0.181 mg/Kg         * 11/27/13 15:15           2.05         0.592         0.284 mg/Kg         * 11/27/13 15:15           <0.592	Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed           5.44         0.592         0.130         mg/Kg         T1/27/13 15:15         11/30/13 19:58           10.4         B         2.96         0.181         mg/Kg         T1/27/13 15:15         11/30/13 19:58           2.05         0.592         0.284         mg/Kg         T1/27/13 15:15         11/30/13 19:58           <0.592

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.129		0.129	0.0104	mg/Kg	\$	11/29/13 08:40	11/29/13 16:06	1

Client Sample ID: WCSB-22 (2.5-3) Lab Sample ID: 480-50847-5

Date Collected: 11/22/13 13:30 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 90.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.61		3.61	2.30	mg/Kg	₩	11/29/13 07:58	12/03/13 19:27	100
PCB-1221	<3.61		3.61	1.75	mg/Kg	≎	11/29/13 07:58	12/03/13 19:27	100
PCB-1232	<3.61		3.61	1.53	mg/Kg	₽	11/29/13 07:58	12/03/13 19:27	100
PCB-1242	<3.61		3.61	1.42	mg/Kg	φ.	11/29/13 07:58	12/03/13 19:27	100
PCB-1248	<3.61		3.61	1.86	mg/Kg	≎	11/29/13 07:58	12/03/13 19:27	100
PCB-1254	<3.61		3.61	1.86	mg/Kg	₽	11/29/13 07:58	12/03/13 19:27	100
PCB-1260	27.5		3.61	1.86	mg/Kg	φ.	11/29/13 07:58	12/03/13 19:27	100
PCB-1262	<3.61		3.61	2.95	mg/Kg	₽	11/29/13 07:58	12/03/13 19:27	100
PCB-1268	<3.61		3.61	1.53	mg/Kg	≎	11/29/13 07:58	12/03/13 19:27	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150	11/29/13 07:58	12/03/13 19:27	100
Tetrachloro-m-xylene	0	X	30 - 150	11/29/13 07:58	12/03/13 19:27	100
DCB Decachlorobiphenyl	0	X	30 - 150	11/29/13 07:58	12/03/13 19:27	100
DCB Decachlorobiphenyl	0	X	30 - 150	11/29/13 07:58	12/03/13 19:27	100

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.518		0.518	0.0839	mg/Kg	<u> </u>	11/26/13 10:37	11/29/13 18:21	1
Acenaphthylene	<0.518		0.518	0.0932	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Anthracene	0.232	J	0.518	0.0984	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Benzo[a]anthracene	1.99		0.518	0.0787	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Benzo[a]pyrene	2.41		0.518	0.0746	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Benzo[b]fluoranthene	3.94		0.518	0.0735	mg/Kg	₩	11/26/13 10:37	11/29/13 18:21	1
Benzo[g,h,i]perylene	1.43		0.518	0.0881	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Benzo[k]fluoranthene	1.54		0.518	0.0756	mg/Kg	₩	11/26/13 10:37	11/29/13 18:21	1
2-Methylnaphthalene	<0.518		0.518	0.102	mg/Kg	₩	11/26/13 10:37	11/29/13 18:21	1
Chrysene	2.37		0.518	0.0922	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Dibenz(a,h)anthracene	0.760	В	0.518	0.0725	mg/Kg	₩	11/26/13 10:37	11/29/13 18:21	1
Fluoranthene	2.20		0.518	0.0912	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Fluorene	<0.518		0.518	0.104	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Indeno[1,2,3-cd]pyrene	1.52	В	0.518	0.0756	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Naphthalene	<0.518		0.518	0.0870	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
Phenanthrene	0.732		0.518	0.104	mg/Kg		11/26/13 10:37	11/29/13 18:21	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-5

Matrix: Solid Percent Solids: 90.6

Client Sample ID: WCSB-22 (2.5-3)

Date Collected: 11/22/13 13:30 Date Received: 11/26/13 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	3.24		0.518	0.0943	mg/Kg	₩	11/26/13 10:37	11/29/13 18:21	1
C11-C22 Aromatics (unadjusted)	80.9		5.18	2.07	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
C19-C36 Aliphatics	66.0		5.18	2.07	mg/Kg	₽	11/26/13 10:37	11/29/13 18:21	1
C9-C18 Aliphatics	3.64	J	5.18	2.07	mg/Kg	₩	11/26/13 10:37	11/29/13 18:21	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	58.6		5.52	5.52	mg/Kg	₽		12/03/13 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	73		40 - 140				11/26/13 10:37	11/29/13 18:21	1
2-Bromonaphthalene	72		40 - 140				11/26/13 10:37	11/29/13 18:21	1
2-Fluorobiphenyl	89		40 - 140				11/26/13 10:37	11/29/13 18:21	1
o-Terphenyl	66		40 - 140				11/26/13 10:37	11/29/13 18:21	

Client Sample ID: WCSB-21 (2.5-3)

Date Collected: 11/22/13 13:55 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50847-7

**Matrix: Solid** 

Percent Solids: 95.0

Method: 8082 - Polychlorinated Biphenyl	ls (	(GC/ECD)
	_	

Method: 6062 - Polychio	rinated bipnenyis (GC/	ECD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0348		0.0348	0.0221	mg/Kg	<del>\</del>	11/29/13 07:58	12/03/13 19:43	1
PCB-1221	<0.0348		0.0348	0.0169	mg/Kg	₽	11/29/13 07:58	12/03/13 19:43	1
PCB-1232	<0.0348		0.0348	0.0148	mg/Kg	₩	11/29/13 07:58	12/03/13 19:43	1
PCB-1242	<0.0348		0.0348	0.0137	mg/Kg	₽	11/29/13 07:58	12/03/13 19:43	1
PCB-1248	<0.0348		0.0348	0.0179	mg/Kg	₽	11/29/13 07:58	12/03/13 19:43	1
PCB-1254	<0.0348		0.0348	0.0179	mg/Kg	₩	11/29/13 07:58	12/03/13 19:43	1
PCB-1260	<0.0348		0.0348	0.0179	mg/Kg	*	11/29/13 07:58	12/03/13 19:43	1
PCB-1262	<0.0348		0.0348	0.0285	mg/Kg	₩	11/29/13 07:58	12/03/13 19:43	1
PCB-1268	<0.0348		0.0348	0.0148	mg/Kg	₽	11/29/13 07:58	12/03/13 19:43	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83	30 - 150	11/29/13 07:58	12/03/13 19:43	1
Tetrachloro-m-xylene	85	30 - 150	11/29/13 07:58	12/03/13 19:43	1
DCB Decachlorobiphenyl	88	30 - 150	11/29/13 07:58	12/03/13 19:43	1
DCB Decachlorobiphenyl	66	30 - 150	11/29/13 07:58	12/03/13 19:43	1

### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.517	0.517		mg/Kg	<del>_</del>	11/26/13 10:37	11/29/13 18:50	1
Acenaphthylene	<0.517	0.517	0.0931	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Anthracene	<0.517	0.517	0.0982	mg/Kg	☼	11/26/13 10:37	11/29/13 18:50	1
Benzo[a]anthracene	<0.517	0.517	0.0786	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Benzo[a]pyrene	<0.517	0.517	0.0745	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Benzo[b]fluoranthene	<0.517	0.517	0.0734	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Benzo[g,h,i]perylene	<0.517	0.517	0.0879	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Benzo[k]fluoranthene	<0.517	0.517	0.0755	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
2-Methylnaphthalene	<0.517	0.517	0.101	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Chrysene	<0.517	0.517	0.0920	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Dibenz(a,h)anthracene	<0.517	0.517	0.0724	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Fluoranthene	<0.517	0.517	0.0910	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Fluorene	<0.517	0.517	0.103	mg/Kg		11/26/13 10:37	11/29/13 18:50	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

DCB Decachlorobiphenyl

Client Sample ID: WCSB-21 (2.5-3)

Lab Sample ID: 480-50847-7 Date Collected: 11/22/13 13:55 Matrix: Solid

Date Received: 11/26/13 02:00 Percent Solids: 95.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.517		0.517	0.0755	mg/Kg	₩	11/26/13 10:37	11/29/13 18:50	1
Naphthalene	<0.517		0.517	0.0869	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Phenanthrene	<0.517		0.517	0.103	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
Pyrene	<0.517		0.517	0.0941	mg/Kg	₩	11/26/13 10:37	11/29/13 18:50	1
C11-C22 Aromatics (unadjusted)	<5.17		5.17	2.07	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
C19-C36 Aliphatics	<5.17		5.17	2.07	mg/Kg	₽	11/26/13 10:37	11/29/13 18:50	1
C9-C18 Aliphatics	<5.17		5.17	2.07	mg/Kg	₩	11/26/13 10:37	11/29/13 18:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<5.26		5.26	5.26	mg/Kg	<del>\</del>		12/03/13 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	83		40 - 140				11/26/13 10:37	11/29/13 18:50	1
2-Bromonaphthalene	75		40 - 140				11/26/13 10:37	11/29/13 18:50	1
2-Fluorobiphenyl	91		40 - 140				11/26/13 10:37	11/29/13 18:50	1
o-Terphenyl	72		40 - 140				11/26/13 10:37	11/29/13 18:50	

Lab Sample ID: 480-50847-9 Client Sample ID: WCSB-19 (2.5-3)

Date Collected: 11/22/13 14:10 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 89.3

	·								
_ Method: 8082 - Polychlorina	ted Biphenyls (GC/E	CD)							
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0373		0.0373	0.0237	mg/Kg	\$	11/29/13 07:58	12/03/13 19:59	1
PCB-1221	< 0.0373		0.0373	0.0181	mg/Kg	₽	11/29/13 07:58	12/03/13 19:59	1
PCB-1232	< 0.0373		0.0373	0.0158	mg/Kg	₽	11/29/13 07:58	12/03/13 19:59	1
PCB-1242	<0.0373		0.0373	0.0147	mg/Kg	₽	11/29/13 07:58	12/03/13 19:59	1
PCB-1248	< 0.0373		0.0373	0.0192	mg/Kg	₩	11/29/13 07:58	12/03/13 19:59	1
PCB-1254	< 0.0373		0.0373	0.0192	mg/Kg	₩	11/29/13 07:58	12/03/13 19:59	1
PCB-1260	<0.0373		0.0373	0.0192	mg/Kg	₩	11/29/13 07:58	12/03/13 19:59	1
PCB-1262	< 0.0373		0.0373	0.0305	mg/Kg	₩	11/29/13 07:58	12/03/13 19:59	1
PCB-1268	<0.0373		0.0373	0.0158	mg/Kg	₽	11/29/13 07:58	12/03/13 19:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		30 - 150				11/29/13 07:58	12/03/13 19:59	1
Tetrachloro-m-xylene	90		30 - 150				11/29/13 07:58	12/03/13 19:59	1
DCB Decachlorobiphenyl	77		30 - 150				11/29/13 07:58	12/03/13 19:59	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.535		0.535	0.0867	mg/Kg	<del>\</del>	12/02/13 09:26	12/04/13 10:54	1
Acenaphthylene	<0.535		0.535	0.0963	mg/Kg	₩	12/02/13 09:26	12/04/13 10:54	1
Anthracene	< 0.535		0.535	0.102	mg/Kg	₩	12/02/13 09:26	12/04/13 10:54	1
Benzo[a]anthracene	<0.535		0.535	0.0813	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
Benzo[a]pyrene	<0.535		0.535	0.0771	mg/Kg	₩	12/02/13 09:26	12/04/13 10:54	1
Benzo[b]fluoranthene	< 0.535		0.535	0.0760	mg/Kg	₩	12/02/13 09:26	12/04/13 10:54	1
Benzo[g,h,i]perylene	0.221	JB	0.535	0.0910	mg/Kg		12/02/13 09:26	12/04/13 10:54	1
Benzo[k]fluoranthene	< 0.535		0.535	0.0781	mg/Kg	₩	12/02/13 09:26	12/04/13 10:54	1
2-Methylnaphthalene	< 0.535		0.535	0.105	mg/Kg	₩	12/02/13 09:26	12/04/13 10:54	1
Chrysene	<0.535		0.535	0.0952	mg/Kg	₩.	12/02/13 09:26	12/04/13 10:54	1

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TestAmerica Buffalo

11/29/13 07:58

12/03/13 19:59

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-50847-9

Client Sample ID: WCSB-19 (2.5-3) Date Collected: 11/22/13 14:10

Matrix: Solid

Date Received: 11/26/13 02:00

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	0.124	J B	0.535	0.0749	mg/Kg	<u></u>	12/02/13 09:26	12/04/13 10:54	1
Fluoranthene	< 0.535		0.535	0.0942	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
Fluorene	<0.535		0.535	0.107	mg/Kg	\$	12/02/13 09:26	12/04/13 10:54	1
Indeno[1,2,3-cd]pyrene	0.163	J B	0.535	0.0781	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
Naphthalene	<0.535	*	0.535	0.0899	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
Phenanthrene	<0.535		0.535	0.107	mg/Kg	\$	12/02/13 09:26	12/04/13 10:54	1
Pyrene	<0.535		0.535	0.0974	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
C11-C22 Aromatics (unadjusted)	<5.35		5.35	2.14	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
C19-C36 Aliphatics	<5.35		5.35	2.14	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
C9-C18 Aliphatics	<5.35		5.35	2.14	mg/Kg	₽	12/02/13 09:26	12/04/13 10:54	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<5.60		5.60	5.60	mg/Kg	<del>\</del>		12/03/13 12:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	85		40 - 140				12/02/13 09:26	12/04/13 10:54	1
2-Bromonaphthalene	76		40 - 140				12/02/13 09:26	12/04/13 10:54	1
2-Fluorobiphenyl	94		40 - 140				12/02/13 09:26	12/04/13 10:54	1
o-Terphenyl	71		40 - 140				12/02/13 09:26	12/04/13 10:54	1

Client Sample ID: WCSB-18 (2.5-3)

Lab Sample ID: 480-50847-11 Date Collected: 11/22/13 14:20

**Matrix: Solid** 

Date Received: 11/26/13 02:00 Percent Solids: 92.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<18.1		18.1	11.5	mg/Kg	\$	11/29/13 07:58	12/03/13 20:46	500
PCB-1221	<18.1		18.1	8.79	mg/Kg	₽	11/29/13 07:58	12/03/13 20:46	500
PCB-1232	<18.1		18.1	7.69	mg/Kg	₩	11/29/13 07:58	12/03/13 20:46	500
PCB-1242	<18.1		18.1	7.14	mg/Kg	₽	11/29/13 07:58	12/03/13 20:46	500
PCB-1248	<18.1		18.1	9.34	mg/Kg	₽	11/29/13 07:58	12/03/13 20:46	500
PCB-1254	<18.1		18.1	9.34	mg/Kg	₽	11/29/13 07:58	12/03/13 20:46	500
PCB-1260	69.4		18.1	9.34	mg/Kg	₽	11/29/13 07:58	12/03/13 20:46	500
PCB-1262	<18.1		18.1	14.8	mg/Kg	₽	11/29/13 07:58	12/03/13 20:46	500
PCB-1268	<18.1		18.1	7.69	mg/Kg	₽	11/29/13 07:58	12/03/13 20:46	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				11/29/13 07:58	12/03/13 20:46	500
Tetrachloro-m-xylene	0	X	30 - 150				11/29/13 07:58	12/03/13 20:46	500
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/03/13 20:46	500
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/03/13 20:46	500

Client Sample ID: WCSB-17 (2.5-3) Lab Sample ID: 480-50847-13

Date Collected: 11/22/13 14:35 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 92.0

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)									
	Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
	PCB-1016	<35.8	35.8	22.8 mg/Kg	<del>*</del>	11/29/13 07:58	12/03/13 20:15	1000	
	PCB-1221	<35.8	35.8	17.4 mg/Kg	<b>ÿ</b>	11/29/13 07:58	12/03/13 20:15	1000	
	PCB-1232	<35.8	35.8	15.2 mg/Kg	<b>9</b>	11/29/13 07:58	12/03/13 20:15	1000	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-13

Matrix: Solid

Percent Solids: 92.0

Client	Sampl	e ID:	WCSB-	17 (	2.5-3)
				•	/

Date Collected: 11/22/13 14:35 Date Received: 11/26/13 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	<35.8		35.8	14.1	mg/Kg	₩	11/29/13 07:58	12/03/13 20:15	1000
PCB-1248	<35.8		35.8	18.4	mg/Kg	₽	11/29/13 07:58	12/03/13 20:15	1000
PCB-1254	<35.8		35.8	18.4	mg/Kg	₩	11/29/13 07:58	12/03/13 20:15	1000
PCB-1260	395		35.8	18.4	mg/Kg	₽	11/29/13 07:58	12/03/13 20:15	1000
PCB-1262	<35.8		35.8	29.3	mg/Kg	☼	11/29/13 07:58	12/03/13 20:15	1000
PCB-1268	<35.8		35.8	15.2	mg/Kg	₽	11/29/13 07:58	12/03/13 20:15	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				11/29/13 07:58	12/03/13 20:15	1000
Tetrachloro-m-xylene	0	Χ	30 - 150				11/29/13 07:58	12/03/13 20:15	1000
DCB Decachlorobiphenyl	0	Χ	30 - 150				11/29/13 07:58	12/03/13 20:15	1000
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 07:58	12/03/13 20:15	1000

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.536		0.536	0.0868	mg/Kg	<u> </u>	11/26/13 10:37	11/29/13 20:18	1
Acenaphthylene	< 0.536		0.536	0.0965	mg/Kg	₩	11/26/13 10:37	11/29/13 20:18	1
Anthracene	0.135	J	0.536	0.102	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Benzo[a]anthracene	0.476	J	0.536	0.0815	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Benzo[a]pyrene	1.08		0.536	0.0772	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Benzo[b]fluoranthene	2.16		0.536	0.0761	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Benzo[g,h,i]perylene	<0.536		0.536	0.0911	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Benzo[k]fluoranthene	< 0.536		0.536	0.0782	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
2-Methylnaphthalene	< 0.536		0.536	0.105	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Chrysene	0.737		0.536	0.0954	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Dibenz(a,h)anthracene	1.84	В	0.536	0.0750	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Fluoranthene	2.26		0.536	0.0943	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Fluorene	<0.536		0.536	0.107	mg/Kg	*	11/26/13 10:37	11/29/13 20:18	1
Indeno[1,2,3-cd]pyrene	< 0.536		0.536	0.0782	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Naphthalene	< 0.536		0.536	0.0900	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Phenanthrene	0.407	J	0.536	0.107	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
Pyrene	0.616		0.536	0.0975	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
C11-C22 Aromatics (unadjusted)	112		5.36	2.14	mg/Kg	₽	11/26/13 10:37	11/29/13 20:18	1
C19-C36 Aliphatics	256		5.36	2.14	mg/Kg	₩	11/26/13 10:37	11/29/13 20:18	1
C9-C18 Aliphatics	30.9		5.36	2.14	mg/Kg	₩	11/26/13 10:37	11/29/13 20:18	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	102		5.43	5.43	mg/Kg	₩		12/03/13 12:12	1

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctadecane	34	X	40 - 140	11/26/13 10:37	11/29/13 20:18	1
	2-Bromonaphthalene	90		40 - 140	11/26/13 10:37	11/29/13 20:18	1
	2-Fluorobiphenyl	107		40 - 140	11/26/13 10:37	11/29/13 20:18	1
Į	o-Terphenyl	29	X	40 - 140	11/26/13 10:37	11/29/13 20:18	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-15

Matrix: Solid

Percent Solids: 68.3

Date Collected: 11/22/13 14:55 Date Received: 11/26/13 02:00

Method: 8260C - Volatile Orgar Analyte	Result Qualifier	RL	MDI	Unit	D	Prepared	Analyzod	Dil Fa
1,1,1,2-Tetrachloroethane	<0.00304 Qualifier	0.00304	0.000607		— <del>¤</del>	11/26/13 10:30	Analyzed 11/26/13 17:13	— DII F
1,1,1-Trichloroethane	<0.00304	0.00304	0.000441	mg/Kg mg/Kg		11/26/13 10:30	11/26/13 17:13	
1,1,2.2-Tetrachloroethane	<0.00304	0.00304	0.000985	mg/Kg		11/26/13 10:30	11/26/13 17:13	
1,1,2-Trichloroethane	<0.00304	0.00304	0.000983	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 17:13	
1,1,2-11ichloroethane	<0.00304	0.00304	0.000790	mg/Kg		11/26/13 10:30	11/26/13 17:13	
1.1-Dichloroethene	<0.00304	0.00304		mg/Kg		11/26/13 10:30	11/26/13 17:13	
1,1-Dichloropropene	<0.00304	0.00304	0.000743			11/26/13 10:30	11/26/13 17:13	
1,2,3-Trichlorobenzene	<0.00304	0.00304	0.000645		₩	11/26/13 10:30	11/26/13 17:13	
1,2,3-Trichloropropane	<0.00304	0.00304	0.000643	mg/Kg		11/26/13 10:30	11/26/13 17:13	
1,2,4-Trichlorobenzene	<0.00304	0.00304	0.000369	mg/Kg		11/26/13 10:30	11/26/13 17:13	
	<0.00304	0.00304				11/26/13 10:30	11/26/13 17:13	
1,2,4-Trimethylbenzene			0.00117					
1,2-Dibromo-3-Chloropropane	<0.0304	0.0304	0.00304	mg/Kg		11/26/13 10:30	11/26/13 17:13	
1,2-Dichlorobenzene	<0.00304	0.00304	0.000475		₩	11/26/13 10:30	11/26/13 17:13	
1,2-Dichloroethane	<0.00304	0.00304	0.000305	mg/Kg		11/26/13 10:30	11/26/13 17:13	
1,2-Dichloropropane	<0.00304	0.00304	0.00304	mg/Kg	<del></del>	11/26/13 10:30	11/26/13 17:13	
1,3,5-Trimethylbenzene	<0.00304	0.00304	0.000391	mg/Kg	*	11/26/13 10:30	11/26/13 17:13	
1,3-Dichlorobenzene	<0.00304	0.00304			₩	11/26/13 10:30	11/26/13 17:13	
1,3-Dichloropropane	<0.00304	0.00304	0.000364	mg/Kg	· · · · ·	11/26/13 10:30	11/26/13 17:13	
1,4-Dichlorobenzene	<0.00304	0.00304	0.000850	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
I,4-Dioxane	<0.304	0.304	0.0293	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
2,2-Dichloropropane	<0.00304	0.00304	0.00103	mg/Kg		11/26/13 10:30	11/26/13 17:13	
2-Butanone (MEK)	<0.0304 *	0.0304		mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
2-Chlorotoluene	<0.00304	0.00304	0.000398	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
2-Hexanone	<0.0304	0.0304	0.00304	mg/Kg		11/26/13 10:30	11/26/13 17:13	
4-Chlorotoluene	<0.00304	0.00304	0.000717	mg/Kg	<b>‡</b>	11/26/13 10:30	11/26/13 17:13	
1-Isopropyltoluene	<0.00304	0.00304	0.000487	mg/Kg	<b>‡</b>	11/26/13 10:30	11/26/13 17:13	
4-Methyl-2-pentanone (MIBK)	<0.0304	0.0304	0.00199	mg/Kg		11/26/13 10:30	11/26/13 17:13	
Acetone	0.0118 J	0.304	0.00511	mg/Kg	*	11/26/13 10:30	11/26/13 17:13	
Benzene	<0.00304	0.00304	0.000298	mg/Kg	*	11/26/13 10:30	11/26/13 17:13	
Bromobenzene	<0.00304	0.00304	0.00107	mg/Kg		11/26/13 10:30	11/26/13 17:13	
Bromoform	<0.00304	0.00304	0.00304	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
Bromomethane	<0.00607	0.00607	0.000547	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
Carbon disulfide	0.00530	0.00304	0.00304	mg/Kg		11/26/13 10:30	11/26/13 17:13	
Carbon tetrachloride	<0.00304	0.00304	0.000588	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
Chlorobenzene	<0.00304	0.00304	0.000802		₩	11/26/13 10:30	11/26/13 17:13	
Chlorobromomethane	<0.00304	0.00304	0.000439	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
Chlorodibromomethane	<0.00304	0.00304	0.000777	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	
Chloroethane	<0.00607	0.00607	0.00137	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
Chloroform	<0.00304	0.00304	0.000375	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	
Chloromethane	<0.00607	0.00607	0.000367	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
cis-1,2-Dichloroethene	<0.00304	0.00304	0.000777	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
cis-1,3-Dichloropropene	<0.00304	0.00304	0.000875	mg/Kg	☼	11/26/13 10:30	11/26/13 17:13	
Dichlorobromomethane	<0.00304	0.00304	0.000814	mg/Kg	*	11/26/13 10:30	11/26/13 17:13	
Dichlorodifluoromethane	<0.00607	0.00607	0.000502	mg/Kg	≎	11/26/13 10:30	11/26/13 17:13	
Ethyl ether	<0.00304	0.00304	0.00255	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	
Ethylbenzene	0.000619 J	0.00304	0.000419	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	
Ethylene Dibromide	<0.00304	0.00304	0.000780	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	
Hexachlorobutadiene	<0.00304	0.00304	0.000712	mg/Kg	≎	11/26/13 10:30	11/26/13 17:13	
Isopropyl ether	<0.00304	0.00304	0.00304	mg/Kg		11/26/13 10:30	11/26/13 17:13	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-16 (6-7)

Date Collected: 11/22/13 14:55 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50847-15

Matrix: Solid

Percent Solids: 68.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<0.00304		0.00304	0.000916	mg/Kg	₩	11/26/13 10:30	11/26/13 17:13	1
Methyl tert-butyl ether	0.00268	J	0.00304	0.000596	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Methylene Chloride	<0.00304		0.00304	0.00279	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
m-Xylene & p-Xylene	0.00249	J	0.00607	0.00102	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Naphthalene	< 0.0304		0.0304	0.000814	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
n-Butylbenzene	<0.00304		0.00304	0.000528	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
N-Propylbenzene	< 0.00304		0.00304	0.000486	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
o-Xylene	< 0.00304		0.00304	0.000793	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
sec-Butylbenzene	<0.00304		0.00304	0.000528	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Styrene	< 0.00304		0.00304	0.000304	mg/Kg	☼	11/26/13 10:30	11/26/13 17:13	1
Tert-amyl methyl ether	< 0.00304		0.00304	0.00155	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Tert-butyl ethyl ether	<0.00304		0.00304	0.00267	mg/Kg	\$	11/26/13 10:30	11/26/13 17:13	1
tert-Butylbenzene	< 0.00304		0.00304	0.000632	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Tetrachloroethene	<0.00304		0.00304	0.000815	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Tetrahydrofuran	<0.0607		0.0607	0.00559	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Toluene	<0.00304		0.00304	0.000459	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
trans-1,2-Dichloroethene	< 0.00304		0.00304	0.000627	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
trans-1,3-Dichloropropene	<0.00304		0.00304	0.00267	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Trichloroethene	< 0.00304		0.00304	0.00134	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Trichlorofluoromethane	<0.00607		0.00607	0.000575	mg/Kg	☼	11/26/13 10:30	11/26/13 17:13	1
Vinyl chloride	<0.00304		0.00304	0.000741	mg/Kg		11/26/13 10:30	11/26/13 17:13	1
Dibromomethane	<0.00304		0.00304	0.000626	mg/Kg	₽	11/26/13 10:30	11/26/13 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130				11/26/13 10:30	11/26/13 17:13	1

70 - 130

70 - 130

**Client Sample ID: WCSB-15 (0.5-1.5)** 

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Date Collected: 11/22/13 15:15 Date Received: 11/26/13 02:00

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Lab Sample ID: 480-50847-16

11/26/13 17:13

11/26/13 17:13

11/26/13 10:30

11/26/13 10:30

**Matrix: Solid** Percent Solids: 91.8

Analyte	Result Q	Qualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00238	0.00238	0.000476	mg/Kg	\$	11/26/13 10:30	11/26/13 17:38	1
1,1,1-Trichloroethane	<0.00238	0.00238	0.000346	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,1,2,2-Tetrachloroethane	<0.00238	0.00238	0.000772	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,1,2-Trichloroethane	<0.00238	0.00238	0.000619	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,1-Dichloroethane	<0.00238	0.00238	0.000581	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,1-Dichloroethene	<0.00238	0.00238	0.000583	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	1
1,1-Dichloropropene	<0.00238	0.00238	0.000676	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,2,3-Trichlorobenzene	<0.00238	0.00238	0.000505	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,2,3-Trichloropropane	<0.00238	0.00238	0.000485	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,2,4-Trichlorobenzene	<0.00238	0.00238	0.000289	mg/Kg		11/26/13 10:30	11/26/13 17:38	1
1,2,4-Trimethylbenzene	<0.00238	0.00238	0.000914	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	1
1,2-Dibromo-3-Chloropropane	<0.0238	0.0238	0.00238	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,2-Dichlorobenzene	<0.00238	0.00238	0.000372	mg/Kg		11/26/13 10:30	11/26/13 17:38	1
1,2-Dichloroethane	<0.00238	0.00238	0.000239	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	1
1,2-Dichloropropane	<0.00238	0.00238	0.00238	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
1,3,5-Trimethylbenzene	<0.00238	0.00238	0.000307	mg/Kg		11/26/13 10:30	11/26/13 17:38	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-16

Matrix: Solid

Percent Solids: 91.8

Date Collected: 11/22/13 15:15 Date Received: 11/26/13 02:00

Method: 8260C - Volatile Organ				BADA	l Inié	_	Dranavad	Analyzad	Di F-
Analyte  1.3 Dichlorobonzono	<0.00238	Qualifier	RL 0.00238		Unit	— <del>D</del>	Prepared 11/26/13 10:30	Analyzed 11/26/13 17:38	Dil Fa
1,3-Dichlorobenzene	<0.00238		0.00238	0.000245 0.000286	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
1,3-Dichloropropane					mg/Kg				
1,4-Dichlorobenzene	<0.00238		0.00238	0.000666	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
1,4-Dioxane	<0.238		0.238	0.0229	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
2,2-Dichloropropane	<0.00238		0.00238	0.000809	mg/Kg	<del>*</del>	11/26/13 10:30	11/26/13 17:38	
2-Butanone (MEK)	<0.0238	-	0.0238	0.00174		₩	11/26/13 10:30	11/26/13 17:38	
2-Chlorotoluene	<0.00238		0.00238	0.000312			11/26/13 10:30	11/26/13 17:38	
2-Hexanone	<0.0238		0.0238	0.00238	mg/Kg	<u></u>	11/26/13 10:30	11/26/13 17:38	
4-Chlorotoluene	<0.00238		0.00238	0.000562			11/26/13 10:30	11/26/13 17:38	
4-Isopropyltoluene	<0.00238		0.00238	0.000382		₩	11/26/13 10:30	11/26/13 17:38	
4-Methyl-2-pentanone (MIBK)	<0.0238		0.0238		mg/Kg		11/26/13 10:30	11/26/13 17:38	
Acetone	0.0113	J	0.238	0.00401	mg/Kg	**	11/26/13 10:30	11/26/13 17:38	
Benzene	<0.00238		0.00238	0.000233	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
Bromobenzene	<0.00238		0.00238	0.000838	mg/Kg		11/26/13 10:30	11/26/13 17:38	
Bromoform	<0.00238		0.00238	0.00238	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Bromomethane	<0.00476		0.00476	0.000428	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
Carbon disulfide	<0.00238		0.00238	0.00238	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Carbon tetrachloride	<0.00238		0.00238	0.000461	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
Chlorobenzene	<0.00238		0.00238	0.000628	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
Chlorobromomethane	<0.00238		0.00238	0.000344	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Chlorodibromomethane	<0.00238		0.00238	0.000609	mg/Kg	\$	11/26/13 10:30	11/26/13 17:38	
Chloroethane	< 0.00476		0.00476	0.00108	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Chloroform	<0.00238		0.00238	0.000294	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
Chloromethane	<0.00476		0.00476	0.000287	mg/Kg		11/26/13 10:30	11/26/13 17:38	
cis-1,2-Dichloroethene	<0.00238		0.00238	0.000609	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
cis-1,3-Dichloropropene	<0.00238		0.00238	0.000685	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Dichlorobromomethane	<0.00238		0.00238	0.000638	mg/Kg	φ.	11/26/13 10:30	11/26/13 17:38	
Dichlorodifluoromethane	< 0.00476		0.00476	0.000393	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
Ethyl ether	<0.00238		0.00238	0.00200	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	
Ethylbenzene	0.00608		0.00238	0.000328	mg/Kg		11/26/13 10:30	11/26/13 17:38	
Ethylene Dibromide	<0.00238		0.00238	0.000611	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Hexachlorobutadiene	<0.00238		0.00238	0.000558	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
sopropyl ether	<0.00238		0.00238		mg/Kg		11/26/13 10:30	11/26/13 17:38	
sopropylbenzene	<0.00238		0.00238	0.000718		₩	11/26/13 10:30	11/26/13 17:38	
Methyl tert-butyl ether	<0.00238		0.00238	0.000467			11/26/13 10:30	11/26/13 17:38	
Methylene Chloride	<0.00238		0.00238	0.00219			11/26/13 10:30	11/26/13 17:38	
•			0.00236			₽	11/26/13 10:30		
m-Xylene & p-Xylene	0.0175				mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Naphthalene	0.00296		0.0238		mg/Kg			11/26/13 17:38	
n-Butylbenzene	<0.00238		0.00238	0.000414			11/26/13 10:30	11/26/13 17:38	
N-Propylbenzene	<0.00238		0.00238	0.000381	mg/Kg	<b>₽</b>	11/26/13 10:30	11/26/13 17:38	
o-Xylene	0.00660		0.00238			<del></del>	11/26/13 10:30	11/26/13 17:38	
sec-Butylbenzene	<0.00238		0.00238	0.000414		₽	11/26/13 10:30	11/26/13 17:38	
Styrene	<0.00238		0.00238		mg/Kg	*	11/26/13 10:30	11/26/13 17:38	
Fert-amyl methyl ether	<0.00238		0.00238	0.00122		<u></u>	11/26/13 10:30	11/26/13 17:38	
Tert-butyl ethyl ether	<0.00238		0.00238	0.00209	mg/Kg	*	11/26/13 10:30	11/26/13 17:38	
ert-Butylbenzene	<0.00238		0.00238	0.000495		₽	11/26/13 10:30	11/26/13 17:38	
Tetrachloroethene	0.0137		0.00238	0.000639	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Tetrahydrofuran	<0.0476		0.0476	0.00438	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	
Toluene	0.137		0.00238	0.000360	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

DCB Decachlorobiphenyl

DCB Decachlorobiphenyl

**Client Sample ID: WCSB-15 (0.5-1.5)** 

Lab Sample ID: 480-50847-16 Date Collected: 11/22/13 15:15 Matrix: Solid

Date Received: 11/26/13 02:00 Percent Solids: 91.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.00238		0.00238	0.000491	mg/Kg	<del>*</del>	11/26/13 10:30	11/26/13 17:38	1
trans-1,3-Dichloropropene	<0.00238		0.00238	0.00209	mg/Kg	*	11/26/13 10:30	11/26/13 17:38	1
Trichloroethene	<0.00238		0.00238	0.00105	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
Trichlorofluoromethane	<0.00476		0.00476	0.000450	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
Vinyl chloride	<0.00238		0.00238	0.000581	mg/Kg	₽	11/26/13 10:30	11/26/13 17:38	1
Dibromomethane	<0.00238		0.00238	0.000490	mg/Kg	₩	11/26/13 10:30	11/26/13 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130				11/26/13 10:30	11/26/13 17:38	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130				11/26/13 10:30	11/26/13 17:38	1
4-Bromofluorobenzene (Surr)	94		70 - 130				11/26/13 10:30	11/26/13 17:38	1

Client Sample ID: WCSB-15 (2.5-3) Lab Sample ID: 480-50847-17

Date Collected: 11/22/13 15:17 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 88.3

	· <del>·</del>							
Method: 8082 - Polychlorin	ated Biphenyls (GC/ECD)							
Analyte	Result Qualifier	· RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.374	0.374	0.238	mg/Kg	\$	11/29/13 08:08	12/05/13 04:16	10
PCB-1221	<0.374	0.374	0.181	mg/Kg	☼	11/29/13 08:08	12/05/13 04:16	10
PCB-1232	<0.374	0.374	0.159	mg/Kg	₽	11/29/13 08:08	12/05/13 04:16	10
PCB-1242	<0.374	0.374	0.147	mg/Kg	\$	11/29/13 08:08	12/05/13 04:16	10
PCB-1248	<0.374	0.374	0.193	mg/Kg	☼	11/29/13 08:08	12/05/13 04:16	10
PCB-1254	<0.374	0.374	0.193	mg/Kg	☼	11/29/13 08:08	12/05/13 04:16	10
PCB-1260	1.32	0.374	0.193	mg/Kg		11/29/13 08:08	12/05/13 04:16	10
PCB-1262	<0.374	0.374	0.306	mg/Kg	☼	11/29/13 08:08	12/05/13 04:16	10
PCB-1268	<0.374	0.374	0.159	mg/Kg	₽	11/29/13 08:08	12/05/13 04:16	10
Surrogate	%Recovery Qualifier	r Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0 X	30 - 150				11/29/13 08:08	12/05/13 04:16	10
Tetrachloro-m-xylene	0 X	30 - 150				11/29/13 08:08	12/05/13 04:16	10

Client Sample ID: WCSB-14 (7-8) Lab Sample ID: 480-50847-19

30 - 150

30 - 150

460 X

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Date Collected: 11/22/13 15:30 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 95.3

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00219	0.00219	0.000439	mg/Kg	₩	11/26/13 10:30	11/26/13 18:04	1
1,1,1-Trichloroethane	<0.00219	0.00219	0.000319	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,1,2,2-Tetrachloroethane	<0.00219	0.00219	0.000712	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,1,2-Trichloroethane	<0.00219	0.00219	0.000570	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,1-Dichloroethane	<0.00219	0.00219	0.000535	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,1-Dichloroethene	<0.00219	0.00219	0.000537	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,1-Dichloropropene	<0.00219	0.00219	0.000623	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,2,3-Trichlorobenzene	<0.00219	0.00219	0.000466	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,2,3-Trichloropropane	<0.00219	0.00219	0.000447	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
1,2,4-Trichlorobenzene	<0.00219	0.00219	0.000267	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1

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11/29/13 08:08

11/29/13 08:08

12/05/13 04:16

12/05/13 04:16

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Client Sample ID: WCSB-14 (7-8)

Lab Sample ID: 480-50847-19 Date Collected: 11/22/13 15:30 Matrix: Solid Date Received: 11/26/13 02:00

Percent Solids: 95.3

Method: 8260C - Volatile Organ Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2,4-Trimethylbenzene	<0.00219		0.00219	0.000842	mg/Kg	— <del>-</del>	11/26/13 10:30	11/26/13 18:04	
1,2-Dibromo-3-Chloropropane	<0.0219		0.0219	0.00219	mg/Kg	₩	11/26/13 10:30	11/26/13 18:04	
1,2-Dichlorobenzene	<0.00219		0.00219	0.000343	mg/Kg		11/26/13 10:30	11/26/13 18:04	
1,2-Dichloroethane	<0.00219		0.00219	0.000220	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
1,2-Dichloropropane	<0.00219		0.00219	0.00219	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
1,3,5-Trimethylbenzene	<0.00219		0.00219	0.000283			11/26/13 10:30	11/26/13 18:04	
1,3-Dichlorobenzene	<0.00219		0.00219		mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
1,3-Dichloropropane	<0.00219		0.00219		mg/Kg	₩	11/26/13 10:30	11/26/13 18:04	
1,4-Dichlorobenzene	<0.00219		0.00219	0.000614			11/26/13 10:30	11/26/13 18:04	
1,4-Dioxane	<0.219		0.219	0.0212		₽	11/26/13 10:30	11/26/13 18:04	
2,2-Dichloropropane	<0.00219		0.00219		mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
2-Butanone (MEK)	<0.0219	*	0.0219	0.00161	mg/Kg		11/26/13 10:30	11/26/13 18:04	
2-Chlorotoluene	<0.00219		0.00219	0.000288	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
2-Hexanone	< 0.0219		0.0219	0.00219	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
4-Chlorotoluene	<0.00219		0.00219		mg/Kg		11/26/13 10:30	11/26/13 18:04	
4-Isopropyltoluene	<0.00219		0.00210		mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
4-Methyl-2-pentanone (MIBK)	< 0.0219		0.0219	0.00144	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
Acetone	0.00989		0.219	0.00369	mg/Kg		11/26/13 10:30	11/26/13 18:04	
Benzene	<0.00219	·	0.00219		mg/Kg	₩	11/26/13 10:30	11/26/13 18:04	
Bromobenzene	<0.00219		0.00219	0.000210		₽	11/26/13 10:30	11/26/13 18:04	
Bromoform	<0.00219		0.00219	0.00219	mg/Kg		11/26/13 10:30	11/26/13 18:04	
Bromomethane	< 0.00213		0.00213	0.000395	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
Carbon disulfide	<0.00219		0.00219	0.00219	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
Carbon tetrachloride	<0.00219		0.00219	0.000425	mg/Kg		11/26/13 10:30	11/26/13 18:04	
Chlorobenzene	<0.00219		0.00219	0.000579	mg/Kg	₩	11/26/13 10:30	11/26/13 18:04	
Chlorobromomethane	<0.00219		0.00219	0.000317		₩	11/26/13 10:30	11/26/13 18:04	
Chlorodibromomethane	<0.00219		0.00219		mg/Kg		11/26/13 10:30	11/26/13 18:04	
Chloroethane	<0.00439		0.00439	0.000992	mg/Kg	≎	11/26/13 10:30	11/26/13 18:04	
Chloroform	<0.00439		0.00439	0.000332	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
Chloromethane	<0.00219		0.00219		mg/Kg		11/26/13 10:30	11/26/13 18:04	
cis-1,2-Dichloroethene	<0.00219		0.00400		mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	
cis-1,3-Dichloropropene	<0.00219		0.00219	0.000632		₩	11/26/13 10:30	11/26/13 18:04	
Dichlorobromomethane	<0.00219		0.00219	0.000588			11/26/13 10:30	11/26/13 18:04	
Dichlorodifluoromethane	< 0.00219		0.00219	0.000362		₩	11/26/13 10:30	11/26/13 18:04	
Ethyl ether	<0.00439		0.00439	0.000302		₩	11/26/13 10:30	11/26/13 18:04	
	0.00167		0.00219	0.000303			11/26/13 10:30	11/26/13 18:04	
<b>Ethylbenzene</b> Ethylene Dibromide	<0.00167	J	0.00219	0.000563		₽	11/26/13 10:30	11/26/13 18:04	
•	<0.00219		0.00219	0.000503		т ф			
Hexachlorobutadiene						· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 18:04	
sopropyl ether	<0.00219		0.00219	0.00219		т ф	11/26/13 10:30	11/26/13 18:04	
sopropylbenzene	<0.00219		0.00219	0.000662		₩	11/26/13 10:30	11/26/13 18:04	
Methyl tert-butyl ether	<0.00219		0.00219	0.000431	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 18:04	
Methylene Chloride	<0.00219		0.00219	0.00202		т	11/26/13 10:30	11/26/13 18:04	
m-Xylene & p-Xylene	0.00581		0.00439	0.000737			11/26/13 10:30	11/26/13 18:04	
Naphthalene	<0.0219		0.0219	0.000588		 	11/26/13 10:30	11/26/13 18:04	
n-Butylbenzene	<0.00219		0.00219	0.000382		¥ \$	11/26/13 10:30	11/26/13 18:04	
N-Propylbenzene	<0.00219		0.00219		mg/Kg		11/26/13 10:30	11/26/13 18:04	
o-Xylene	0.00244		0.00219	0.000573		<del></del>	11/26/13 10:30	11/26/13 18:04	
sec-Butylbenzene Styrene	<0.00219 <0.00219		0.00219 0.00219	0.000382 0.000219		₽	11/26/13 10:30	11/26/13 18:04 11/26/13 18:04	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 15:30

Date Received: 11/26/13 02:00

Client Sample ID: WCSB-14 (7-8)

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-19

Matrix: Solid Percent Solids: 95.3

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-amyl methyl ether	<0.00219		0.00219	0.00112	mg/Kg	₩	11/26/13 10:30	11/26/13 18:04	1
Tert-butyl ethyl ether	<0.00219		0.00219	0.00193	mg/Kg	*	11/26/13 10:30	11/26/13 18:04	1
tert-Butylbenzene	<0.00219		0.00219	0.000456	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
Tetrachloroethene	0.0266		0.00219	0.000589	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
Tetrahydrofuran	<0.0439		0.0439	0.00404	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
Toluene	0.0104		0.00219	0.000332	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
trans-1,2-Dichloroethene	<0.00219		0.00219	0.000453	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
trans-1,3-Dichloropropene	<0.00219		0.00219	0.00193	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
Trichloroethene	0.00206	J	0.00219	0.000965	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
Trichlorofluoromethane	< 0.00439		0.00439	0.000415	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
Vinyl chloride	<0.00219		0.00219	0.000535	mg/Kg	\$	11/26/13 10:30	11/26/13 18:04	1
Dibromomethane	<0.00219		0.00219	0.000452	mg/Kg	₽	11/26/13 10:30	11/26/13 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130				11/26/13 10:30	11/26/13 18:04	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 130				11/26/13 10:30	11/26/13 18:04	1
4-Bromofluorobenzene (Surr)	98		70 <sub>-</sub> 130				11/26/13 10:30	11/26/13 18:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.487		0.487	0.0789	mg/Kg	\$	11/26/13 10:37	11/29/13 20:48	1
Acenaphthylene	<0.487		0.487	0.0876	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Anthracene	0.283	J	0.487	0.0925	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Benzo[a]anthracene	<0.487		0.487	0.0740	mg/Kg	φ.	11/26/13 10:37	11/29/13 20:48	1
Benzo[a]pyrene	0.131	J	0.487	0.0701	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Benzo[b]fluoranthene	0.0714	J	0.487	0.0691	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Benzo[g,h,i]perylene	<0.487		0.487	0.0828	mg/Kg	φ.	11/26/13 10:37	11/29/13 20:48	1
Benzo[k]fluoranthene	<0.487		0.487	0.0711	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
2-Methylnaphthalene	<0.487		0.487	0.0954	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Chrysene	<0.487		0.487	0.0867	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Dibenz(a,h)anthracene	<0.487		0.487	0.0682	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Fluoranthene	0.469	J	0.487	0.0857	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Fluorene	<0.487		0.487	0.0974	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Indeno[1,2,3-cd]pyrene	<0.487		0.487	0.0711	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Naphthalene	<0.487		0.487	0.0818	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Phenanthrene	0.494		0.487	0.0974	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
Pyrene	0.361	J	0.487	0.0886	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
C11-C22 Aromatics (unadjusted)	32.8		4.87	1.95	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
C19-C36 Aliphatics	35.2		4.87	1.95	mg/Kg	₽	11/26/13 10:37	11/29/13 20:48	1
C9-C18 Aliphatics	45.3		4.87	1.95	mg/Kg	₩	11/26/13 10:37	11/29/13 20:48	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	31.0		5.25	5.25	mg/Kg	<u></u>		12/03/13 12:12	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	78		40 - 140	-	11/26/13 10:37	11/29/13 20:48	1
2-Bromonaphthalene	71		40 - 140		11/26/13 10:37	11/29/13 20:48	1
2-Fluorobiphenyl	91		40 - 140		11/26/13 10:37	11/29/13 20:48	1
o-Terphenyl	76		40 - 140		11/26/13 10:37	11/29/13 20:48	1

TestAmerica Buffalo

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Lab Sample ID: 480-50847-22

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 11/26/13 02:00

Client Sample ID: WCSB-13 (2.5-3)

Lab Sample ID: 480-50847-20 Date Collected: 11/22/13 15:40 **Matrix: Solid** 

Percent Solids: 85.0

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) Result Qualifier RL MDL Unit D Dil Fac Analyte Prepared Analyzed PCB-1016 <0.192 0.192 11/29/13 08:08 0.122 mg/Kg 12/05/13 04:30 PCB-1221 ₩ 5 < 0.192 0 192 11/29/13 08:08 12/05/13 04:30 0.0932 mg/Kg ä PCB-1232 <0.192 0.192 0.0815 mg/Kg 11/29/13 08:08 12/05/13 04:30 5 φ PCB-1242 < 0.192 0.192 0.0757 11/29/13 08:08 12/05/13 04:30 5 mg/Kg PCB-1248 <0.192 0.192 0.0990 11/29/13 08:08 12/05/13 04:30 5 ma/Ka PCB-1254 0.0990 \$ 11/29/13 08:08 5 < 0.192 0 192 mg/Kg 12/05/13 04:30 PCB-1260 0.480 0.192 0.0990 mg/Kg 11/29/13 08:08 12/05/13 04:30 5 PCB-1262 <0.192 11/29/13 08:08 5 0.192 0.157 ma/Ka 12/05/13 04:30 PCB-1268 5 <0.192 0.192 0.0815 mg/Kg 11/29/13 08:08 12/05/13 04:30 Qualifier Limits Prepared Dil Fac Surrogate %Recovery Analyzed 73 30 - 150 11/29/13 08:08 12/05/13 04:30 5 Tetrachloro-m-xylene 80 11/29/13 08:08 5 Tetrachloro-m-xylene 30 - 150 12/05/13 04:30 DCB Decachlorobiphenyl 83 30 - 150 11/29/13 08:08 12/05/13 04:30 5 DCB Decachlorobiphenyl 456 X 30 - 150 11/29/13 08:08 12/05/13 04:30 5

Client Sample ID: WCSB-12 (2.5-3)

Date Collected: 11/22/13 16:10 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 87.6

Method: 8260C - Volatile Organic Compounds (GC/MS) Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte 1,1,1,2-Tetrachloroethane <0.00258 0.00258 0.000516 mg/Kg Ö 11/26/13 10:30 11/26/13 18:29 0.000375 11/26/13 10:30 1.1.1-Trichloroethane < 0.00258 0.00258 11/26/13 18:29 mg/Kg ġ 1,1,2,2-Tetrachloroethane <0.00258 0.00258 0.000837 mg/Kg 11/26/13 10:30 11/26/13 18:29 ġ 1,1,2-Trichloroethane <0.00258 0.00258 0.000671 11/26/13 10:30 11/26/13 18:29 ma/Ka 1,1-Dichloroethane <0.00258 0.00258 0.000630 mg/Kg 11/26/13 10:30 11/26/13 18:29 ₽ 1,1-Dichloroethene < 0.00258 0.00258 0.000632 ma/Ka 11/26/13 10:30 11/26/13 18:29 ġ 1,1-Dichloropropene < 0.00258 0.00258 0.000733 mg/Kg 11/26/13 10:30 11/26/13 18:29 1,2,3-Trichlorobenzene <0.00258 0.00258 0.000548 11/26/13 10:30 11/26/13 18:29 ma/Ka 11/26/13 10:30 11/26/13 18:29 1,2,3-Trichloropropane < 0.00258 0.00258 0.000525 mg/Kg 1,2,4-Trichlorobenzene 0.000314 11/26/13 10:30 11/26/13 18:29 < 0.00258 0.00258 mg/Kg 1,2,4-Trimethylbenzene < 0.00258 0.00258 0.000991 11/26/13 10:30 11/26/13 18:29 mg/Kg 1,2-Dibromo-3-Chloropropane 0.0258 11/26/13 10:30 11/26/13 18:29 < 0.0258 0.00258 mg/Kg φ 1.2-Dichlorobenzene < 0.00258 0.00258 0.000404 mg/Kg 11/26/13 10:30 11/26/13 18:29 1,2-Dichloroethane <0.00258 0.00258 0.000259 ma/Ka ₩ 11/26/13 10:30 11/26/13 18:29 1,2-Dichloropropane < 0.00258 0.00258 0.00258 mg/Kg 11/26/13 10:30 11/26/13 18:29 1,3,5-Trimethylbenzene <0.00258 0.00258 0.000332 mg/Kg 11/26/13 10:30 11/26/13 18:29 1,3-Dichlorobenzene <0.00258 0.00258 0.000265 11/26/13 10:30 11/26/13 18:29 ma/Ka ₩ 1,3-Dichloropropane <0.00258 0.00258 0.000310 mg/Kg 11/26/13 10:30 11/26/13 18:29 ₽ 1,4-Dichlorobenzene < 0.00258 0.00258 0.000723 11/26/13 10:30 11/26/13 18:29 mg/Kg ₩ 1.4-Dioxane < 0.258 0.258 0.0249 mg/Kg 11/26/13 10:30 11/26/13 18:29 2,2-Dichloropropane <0.00258 0.00258 0.000877 mg/Kg ₩ 11/26/13 10:30 11/26/13 18:29 2-Butanone (MEK) 0.0258 11/26/13 10:30 11/26/13 18:29 < 0.0258 0.00189 mg/Kg 2-Chlorotoluene <0.00258 0.00258 0.000339 mg/Kg 11/26/13 10:30 11/26/13 18:29 < 0.0258 0.0258 0.00258 mg/Kg 11/26/13 10:30 11/26/13 18:29 2-Hexanone 4-Chlorotoluene <0.00258 0.00258 0.000609 11/26/13 10:30 11/26/13 18:29 mg/Kg < 0.00258 0.00258 0.000414 11/26/13 10:30 11/26/13 18:29 4-Isopropyltoluene mg/Kg ₩ 4-Methyl-2-pentanone (MIBK) <0.0258 0.0258 0.00169 11/26/13 10:30 11/26/13 18:29 Acetone 0.0341 0.258 0.00435 mg/Kg 11/26/13 10:30 11/26/13 18:29

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-22

Matrix: Solid

Percent Solids: 87.6

Client Samp	le ID:	WCSB-12	(2.5-3)
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Date Collected: 11/22/13 16:10 Date Received: 11/26/13 02:00

Method: 8260C - Volatile Orga Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00258		0.00258	0.000253	mg/Kg	<u></u>	11/26/13 10:30	11/26/13 18:29	
Bromobenzene	<0.00258		0.00258	0.000908	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
Bromoform	<0.00258		0.00258	0.00258	mg/Kg		11/26/13 10:30	11/26/13 18:29	
Bromomethane	< 0.00516		0.00516	0.000465	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
Carbon disulfide	<0.00258		0.00258	0.00258		₽	11/26/13 10:30	11/26/13 18:29	
Carbon tetrachloride	<0.00258		0.00258	0.000500	mg/Kg		11/26/13 10:30	11/26/13 18:29	
Chlorobenzene	<0.00258		0.00258	0.000681	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Chlorobromomethane	<0.00258		0.00258	0.000373	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Chlorodibromomethane	<0.00258		0.00258	0.000661	mg/Kg		11/26/13 10:30	11/26/13 18:29	
Chloroethane	< 0.00516		0.00516	0.00117	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Chloroform	<0.00258		0.00258	0.000319	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Chloromethane	<0.00516		0.00516	0.000312	mg/Kg		11/26/13 10:30	11/26/13 18:29	
cis-1,2-Dichloroethene	<0.00258		0.00258	0.000661	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
cis-1,3-Dichloropropene	<0.00258		0.00258	0.000743	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
Dichlorobromomethane	<0.00258		0.00258	0.000692	mg/Kg	\$	11/26/13 10:30	11/26/13 18:29	
Dichlorodifluoromethane	< 0.00516		0.00516	0.000426	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
Ethyl ether	<0.00258		0.00258	0.00217	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Ethylbenzene	0.00606		0.00258	0.000356	mg/Kg		11/26/13 10:30	11/26/13 18:29	
Ethylene Dibromide	<0.00258		0.00258	0.000663		₩	11/26/13 10:30	11/26/13 18:29	
Hexachlorobutadiene	<0.00258		0.00258	0.000605	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Isopropyl ether	<0.00258		0.00258	0.00258	mg/Kg		11/26/13 10:30	11/26/13 18:29	
Isopropylbenzene	<0.00258		0.00258	0.000778	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Methyl tert-butyl ether	<0.00258		0.00258	0.000507	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Methylene Chloride	<0.00258		0.00258	0.00237	mg/Kg	· · · · · · · · · · · · · · · · · · ·	11/26/13 10:30	11/26/13 18:29	
m-Xylene & p-Xylene	0.0203		0.00516	0.000867	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Naphthalene	<0.0258		0.0258	0.000692	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
n-Butylbenzene	<0.00258		0.00258	0.000449	mg/Kg		11/26/13 10:30	11/26/13 18:29	
N-Propylbenzene	<0.00258		0.00258	0.000413	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
o-Xylene	0.00738		0.00258	0.000674	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
sec-Butylbenzene	<0.00258		0.00258	0.000449	mg/Kg		11/26/13 10:30	11/26/13 18:29	
Styrene	<0.00258		0.00258	0.000258	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
Tert-amyl methyl ether	<0.00258		0.00258	0.00132		₽	11/26/13 10:30	11/26/13 18:29	
Tert-butyl ethyl ether	<0.00258		0.00258	0.00227	mg/Kg		11/26/13 10:30	11/26/13 18:29	
tert-Butylbenzene	<0.00258		0.00258	0.000537	mg/Kg	₩	11/26/13 10:30	11/26/13 18:29	
Tetrachloroethene	0.132		0.00258	0.000693	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
Tetrahydrofuran	<0.0516		0.0516	0.00475	mg/Kg		11/26/13 10:30	11/26/13 18:29	
Toluene	0.0866		0.00258	0.000390		₽	11/26/13 10:30	11/26/13 18:29	
trans-1,2-Dichloroethene	<0.00258		0.00258	0.000533		₽	11/26/13 10:30	11/26/13 18:29	
trans-1,3-Dichloropropene	<0.00258		0.00258	0.00227		φ.	11/26/13 10:30	11/26/13 18:29	
Trichloroethene	0.00476		0.00258	0.00114		₩	11/26/13 10:30	11/26/13 18:29	
Trichlorofluoromethane	<0.00516		0.00516	0.000488	mg/Kg	₽	11/26/13 10:30	11/26/13 18:29	
Vinyl chloride	<0.00258		0.00258	0.000630	mg/Kg	φ.	11/26/13 10:30	11/26/13 18:29	
Dibromomethane	<0.00258		0.00258	0.000532		₽	11/26/13 10:30	11/26/13 18:29	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	91		70 - 130				11/26/13 10:30	11/26/13 18:29	
1,2-Dichloroethane-d4 (Surr)	108		70 - 130				11/26/13 10:30	11/26/13 18:29	
4-Bromofluorobenzene (Surr)	91		70 - 130				11/26/13 10:30	11/26/13 18:29	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Client Sample ID: WCSB-12 (2.5-3)

Date Collected: 11/22/13 16:10 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50847-22

Matrix: Solid Percent Solids: 87.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<375		375	239	mg/Kg	<u> </u>	11/29/13 08:08	12/05/13 04:45	10000
PCB-1221	<375		375	182	mg/Kg	₽	11/29/13 08:08	12/05/13 04:45	10000
PCB-1232	<375		375	159	mg/Kg	₽	11/29/13 08:08	12/05/13 04:45	10000
PCB-1242	1220		375	148	mg/Kg	φ.	11/29/13 08:08	12/05/13 04:45	10000
PCB-1248	<375		375	193	mg/Kg	₽	11/29/13 08:08	12/05/13 04:45	10000
PCB-1254	<375		375	193	mg/Kg	₽	11/29/13 08:08	12/05/13 04:45	10000
PCB-1260	<375		375	193	mg/Kg	φ.	11/29/13 08:08	12/05/13 04:45	10000
PCB-1262	<375		375	307	mg/Kg	₽	11/29/13 08:08	12/05/13 04:45	10000
PCB-1268	<375		375	159	mg/Kg	₩	11/29/13 08:08	12/05/13 04:45	10000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				11/29/13 08:08	12/05/13 04:45	10000
Tetrachloro-m-xylene	0	X	30 - 150				11/29/13 08:08	12/05/13 04:45	10000
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 08:08	12/05/13 04:45	10000
DCB Decachlorobiphenyl	0	X	30 - 150				11/29/13 08:08	12/05/13 04:45	10000

Client Sample ID: WCSB-912 (2.5-3)

Date Collected: 11/22/13 16:10 Date Received: 11/26/13 02:00

Lab Sample ID: 480-50847-24

Matrix: Solid Percent Solids: 86.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<378		378	241	mg/Kg	<del>-</del>	11/29/13 08:08	12/05/13 05:00	10000
PCB-1221	<378		378	183	mg/Kg	₩	11/29/13 08:08	12/05/13 05:00	10000
PCB-1232	<378		378	161	mg/Kg	₽	11/29/13 08:08	12/05/13 05:00	10000
PCB-1242	2300		378	149	mg/Kg	₩	11/29/13 08:08	12/05/13 05:00	10000
PCB-1248	<378		378	195	mg/Kg	₽	11/29/13 08:08	12/05/13 05:00	10000
PCB-1254	<378		378	195	mg/Kg	₽	11/29/13 08:08	12/05/13 05:00	10000
PCB-1260	<378		378	195	mg/Kg	₩	11/29/13 08:08	12/05/13 05:00	10000
PCB-1262	<378		378	310	mg/Kg	₩	11/29/13 08:08	12/05/13 05:00	10000
PCB-1268	<378		378	161	mg/Kg	₩	11/29/13 08:08	12/05/13 05:00	10000

Surrogate	%Recovery	Qualifier	Limits	Prepar	ed	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150	11/29/13	08:08	12/05/13 05:00	10000
Tetrachloro-m-xylene	0	X	30 - 150	11/29/13 (	08:08	12/05/13 05:00	10000
DCB Decachlorobiphenyl	0	Χ	30 - 150	11/29/13 (	08:08	12/05/13 05:00	10000
DCB Decachlorobiphenyl	0	X	30 - 150	11/29/13 (	08:08	12/05/13 05:00	10000

Client Sample ID: WCSB-11 (6-7)

Date Collected: 11/22/13 16:25

Date Received: 11/26/13 02:00

Lab Sample ID: 480-50847-25

**Matrix: Solid** Percent Solids: 96.5

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<2.72		2.72	1.09	mg/Kg	<del>*</del>	11/27/13 15:15	12/04/13 14:36	5
Arsenic	4.67		1.09	0.435	mg/Kg	₩	11/27/13 15:15	11/30/13 20:00	1
Barium	24.1		0.544	0.120	mg/Kg	₩	11/27/13 15:15	11/30/13 20:00	1
Beryllium	0.368		0.218	0.0305	mg/Kg	\$	11/27/13 15:15	11/30/13 20:00	1
Cadmium	0.249		0.218	0.0326	mg/Kg	₩	11/27/13 15:15	11/30/13 20:00	1
Chromium	7.16		0.544	0.218	mg/Kg	₩	11/27/13 15:15	11/30/13 20:00	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 16:25 Date Received: 11/26/13 02:00

Client Sample ID: WCSB-11 (6-7)

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-25

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Matrix: Solid	
cent Solids: 96.5	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	8.01		1.09	0.250	mg/Kg	₩	11/27/13 15:15	11/30/13 20:00	1
Thallium	<1.09		1.09	0.326	mg/Kg	*	11/27/13 15:15	11/30/13 20:00	1
Vanadium	5.68		0.544	0.120	mg/Kg	₽	11/27/13 15:15	11/30/13 20:00	1
Zinc	88.3	В	2.72	0.166	mg/Kg	₽	11/27/13 15:15	11/30/13 20:00	1
Lead	18.2		0.544	0.261	mg/Kg	₽	11/27/13 15:15	11/30/13 20:00	1
Selenium	<0.544		0.544	0.435	mg/Kg	₽	11/27/13 15:15	11/30/13 20:00	1
Antimony	<0.544		0.544	0.435	mg/Kg	\$	11/27/13 15:15	11/30/13 20:00	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0158	J	0.0976	0.00791	mg/Kg	<del>\</del>	11/29/13 08:40	11/29/13 16:08	1

Client Sample ID: WCSB-7 (7-8) Lab Sample ID: 480-50847-26

Date Collected: 11/22/13 16:40 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 88.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0374		0.0374	0.0238	mg/Kg	<del>\$</del>	11/29/13 08:08	12/05/13 05:15	1
PCB-1221	< 0.0374		0.0374	0.0181	mg/Kg	₽	11/29/13 08:08	12/05/13 05:15	1
PCB-1232	< 0.0374		0.0374	0.0159	mg/Kg	₽	11/29/13 08:08	12/05/13 05:15	1
PCB-1242	0.0258	J	0.0374	0.0147	mg/Kg	₽	11/29/13 08:08	12/05/13 05:15	1
PCB-1248	< 0.0374		0.0374	0.0193	mg/Kg	₽	11/29/13 08:08	12/05/13 05:15	1
PCB-1254	< 0.0374		0.0374	0.0193	mg/Kg	₩	11/29/13 08:08	12/05/13 05:15	1
PCB-1260	<0.0374		0.0374	0.0193	mg/Kg	₩	11/29/13 08:08	12/05/13 05:15	1
PCB-1262	< 0.0374		0.0374	0.0306	mg/Kg	₽	11/29/13 08:08	12/05/13 05:15	1
PCB-1268	<0.0374		0.0374	0.0159	mg/Kg	₽	11/29/13 08:08	12/05/13 05:15	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71	30 - 150	11/29/13 08:08	12/05/13 05:15	1
Tetrachloro-m-xylene	80	30 - 150	11/29/13 08:08	12/05/13 05:15	1
DCB Decachlorobiphenyl	71	30 - 150	11/29/13 08:08	12/05/13 05:15	1
DCB Decachlorobiphenyl	71	30 - 150	11/29/13 08:08	12/05/13 05:15	1

Method: 6010 - Metals (IC Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.561		0.561		mg/Kg	— <del>-</del>	11/27/13 15:15	11/30/13 20:16	1
Arsenic	1.79		1.12		mg/Kg	₽	11/27/13 15:15	11/30/13 20:16	1
Barium	14.1		0.561	0.123	mg/Kg	₩	11/27/13 15:15	11/30/13 20:16	1
Beryllium	0.263		0.225	0.0314	mg/Kg		11/27/13 15:15	11/30/13 20:16	1
Cadmium	<0.225		0.225	0.0337	mg/Kg	₩	11/27/13 15:15	11/30/13 20:16	1
Chromium	6.36		0.561	0.225	mg/Kg	₽	11/27/13 15:15	11/30/13 20:16	1
Nickel	7.15		1.12	0.258	mg/Kg	₽	11/27/13 15:15	11/30/13 20:16	1
Thallium	<1.12		1.12	0.337	mg/Kg	₩	11/27/13 15:15	11/30/13 20:16	1
Vanadium	13.8		0.561	0.123	mg/Kg	₽	11/27/13 15:15	11/30/13 20:16	1
Zinc	43.0	В	2.81	0.172	mg/Kg	\$	11/27/13 15:15	11/30/13 20:16	1
Lead	7.65		0.561	0.269	mg/Kg	₽	11/27/13 15:15	11/30/13 20:16	1
Selenium	<0.561		0.561	0.449	mg/Kg	₽	11/27/13 15:15	11/30/13 20:16	1
Antimony	<0.561		0.561	0.449	mg/Kg	\$	11/27/13 15:15	11/30/13 20:16	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Client Sample ID: WCSB-7 (7-8)

Lab Sample ID: 480-50847-26 Date Collected: 11/22/13 16:40 Matrix: Solid

Percent Solids: 88.8

Date Received: 11/26/13 02:00 Mothod: 7471A - Me

	Method: 7471A - Mercury (CVAA)	Dogult	Ovalifian	DI.	MDI	l lmi4	ь.	Drawarad	Amalumad	Dil Faa
	Analyte		Qualifier	RL		Unit	— <del>×</del>	Prepared	Analyzed	Dil Fac
l	Mercury	0.0133	J	0.108	0.00874	mg/Kg	₩.	11/29/13 08:40	11/29/13 16:15	1

Lab Sample ID: 480-50847-27 Client Sample ID: TB-11222013 (2)

**Matrix: Solid** 

Date Collected: 11/22/13 12:00 Date Received: 11/26/13 02:00

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.125	0.125	0.0250	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,1,1-Trichloroethane	<0.125	0.125	0.0182	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,1,2,2-Tetrachloroethane	<0.125	0.125	0.0406	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,1,2-Trichloroethane	<0.125	0.125	0.0325	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,1-Dichloroethane	<0.125	0.125	0.0305	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,1-Dichloroethene	<0.125	0.125	0.0306	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,1-Dichloropropene	<0.125	0.125	0.0355	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2,3-Trichlorobenzene	<0.125	0.125	0.0266	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2,3-Trichloropropane	<0.125	0.125	0.0255	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2,4-Trichlorobenzene	<0.125	0.125	0.0152	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2,4-Trimethylbenzene	<0.125	0.125	0.0480	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2-Dibromo-3-Chloropropane	<1.25	1.25	0.125	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2-Dichlorobenzene	<0.125	0.125	0.0196	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2-Dichloroethane	<0.125	0.125	0.0126	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,2-Dichloropropane	<0.125	0.125	0.125	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,3,5-Trimethylbenzene	<0.125	0.125	0.0161	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,3-Dichlorobenzene	<0.125	0.125	0.0129	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,3-Dichloropropane	<0.125	0.125	0.0150	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,4-Dichlorobenzene	<0.125	0.125	0.0350	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
1,4-Dioxane	<12.5	12.5	1.21	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
2,2-Dichloropropane	<0.125	0.125	0.0425	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
2-Butanone (MEK)	<1.25 *	1.25	0.0915	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
2-Chlorotoluene	<0.125	0.125	0.0164	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
2-Hexanone	<1.25	1.25	0.125	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
4-Chlorotoluene	<0.125	0.125	0.0295	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
4-Isopropyltoluene	<0.125	0.125	0.0201	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
4-Methyl-2-pentanone (MIBK)	<1.25	1.25	0.0820	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Acetone	<12.5	12.5	0.211	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Benzene	<0.125	0.125	0.0123	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Bromobenzene	<0.125	0.125	0.0440	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Bromoform	<0.125	0.125	0.125	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Bromomethane	<0.250	0.250	0.0225	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Carbon disulfide	<0.125	0.125	0.125	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Carbon tetrachloride	<0.125	0.125	0.0242	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Chlorobenzene	<0.125	0.125	0.0330	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Chlorobromomethane	<0.125	0.125	0.0181	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Chlorodibromomethane	<0.125	0.125	0.0320			11/26/13 10:30	11/26/13 18:55	1
Chloroethane	<0.250	0.250	0.0565			11/26/13 10:30	11/26/13 18:55	1
Chloroform	<0.125	0.125	0.0155	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Chloromethane	<0.250	0.250	0.0151			11/26/13 10:30	11/26/13 18:55	1
cis-1,2-Dichloroethene	<0.125	0.125	0.0320	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
cis-1,3-Dichloropropene	<0.125	0.125	0.0360			11/26/13 10:30	11/26/13 18:55	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

7-27

Client Sample ID: TB-11222013 (2)

Date Collected: 11/22/13 12:00 Date Received: 11/26/13 02:00 Lab Sample ID: 480-50847-27

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	<0.125		0.125	0.0335	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Dichlorodifluoromethane	<0.250		0.250	0.0207	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Ethyl ether	<0.125		0.125	0.105	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Ethylbenzene	<0.125		0.125	0.0173	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Ethylene Dibromide	<0.125		0.125	0.0321	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Hexachlorobutadiene	<0.125		0.125	0.0293	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Isopropyl ether	<0.125		0.125	0.125	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Isopropylbenzene	<0.125		0.125	0.0377	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Methyl tert-butyl ether	<0.125		0.125	0.0246	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Methylene Chloride	<0.125		0.125	0.115	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
m-Xylene & p-Xylene	<0.250		0.250	0.0420	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Naphthalene	<1.25		1.25	0.0335	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
n-Butylbenzene	<0.125		0.125	0.0218	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
N-Propylbenzene	<0.125		0.125	0.0200	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
o-Xylene	<0.125		0.125	0.0327	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
sec-Butylbenzene	<0.125		0.125	0.0218	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Styrene	<0.125		0.125	0.0125	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Tert-amyl methyl ether	<0.125		0.125	0.0640	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Tert-butyl ethyl ether	<0.125		0.125	0.110	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
tert-Butylbenzene	<0.125		0.125	0.0260	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Tetrachloroethene	<0.125		0.125	0.0336	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Tetrahydrofuran	<2.50		2.50	0.230	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Toluene	<0.125		0.125	0.0189	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
trans-1,2-Dichloroethene	<0.125		0.125	0.0258	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
trans-1,3-Dichloropropene	<0.125		0.125	0.110	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Trichloroethene	<0.125		0.125	0.0550	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Trichlorofluoromethane	<0.250		0.250	0.0237	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Vinyl chloride	<0.125		0.125	0.0305	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Dibromomethane	<0.125		0.125	0.0258	mg/Kg		11/26/13 10:30	11/26/13 18:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130				11/26/13 10:30	11/26/13 18:55	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130				11/26/13 10:30	11/26/13 18:55	1
4-Bromofluorobenzene (Surr)	97		70 - 130				11/26/13 10:30	11/26/13 18:55	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

				Percent Su
		TOL	12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
480-50847-3	WCSB-4 (1-2)	123	107	127
480-50847-3 - DL	WCSB-4 (1-2)	61 X	101	55 X
480-50847-15	WCSB-16 (6-7)	95	103	98
480-50847-16	WCSB-15 (0.5-1.5)	96	105	94
480-50847-19	WCSB-14 (7-8)	96	102	98
480-50847-22	WCSB-12 (2.5-3)	91	108	91
480-50847-27	TB-11222013 (2)	96	98	97
LCS 480-154424/4	Lab Control Sample	97	101	99
LCS 480-154701/1-A	Lab Control Sample	100	107	98
LCSD 480-154424/5	Lab Control Sample Dup	96	98	99
LCSD 480-154701/2-A	Lab Control Sample Dup	99	102	96
MB 480-154424/6	Method Blank	96	97	95
MB 480-154701/3-A	Method Blank	98	100	94

Surrogate Legend

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid Prep Type: Total/NA

				Percent Sui	rogate Recovery (	Acceptance Lim
		TCX1	TCX2	DCB1	DCB2	
ab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)	
180-50847-1	WCSB-20 (14-15)	23293 X	5384 X	17635 X	12695 X	
180-50847-5	WCSB-22 (2.5-3)	0 X	0 X	0 X	0 X	
180-50847-7	WCSB-21 (2.5-3)	83	85	88	66	
180-50847-9	WCSB-19 (2.5-3)	76	90	77	58	
180-50847-11	WCSB-18 (2.5-3)	0 X	0 X	0 X	0 X	
180-50847-11 MS	WCSB-18 (2.5-3)	0 X	0 X	0 X	0 X	
80-50847-11 MSD	WCSB-18 (2.5-3)	0 X	0 X	0 X	0 X	
180-50847-13	WCSB-17 (2.5-3)	0 X	0 X	0 X	0 X	
180-50847-17	WCSB-15 (2.5-3)	0 X	0 X	460 X	118	
180-50847-20	WCSB-13 (2.5-3)	73	80	83	456 X	
180-50847-22	WCSB-12 (2.5-3)	0 X	0 X	0 X	0 X	
180-50847-24	WCSB-912 (2.5-3)	0 X	0 X	0 X	0 X	
180-50847-26	WCSB-7 (7-8)	71	80	71	71	
CS 240-111692/24-A	Lab Control Sample	82	109	88	78	
CS 240-111693/24-A	Lab Control Sample	70	146	86	91	
CSD 240-111692/25-A	Lab Control Sample Dup	89	114	75	67	
CSD 240-111693/25-A	Lab Control Sample Dup	83	108	60	91	
MB 240-111692/23-A	Method Blank	76	85	80	82	
ИВ 240-111693/23-A	Method Blank	73	86	60	74	

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

TestAmerica Buffalo

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## **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50847-1

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		1COD2	2BN1	FBP1	OTPH1			
Lab Sample ID	Client Sample ID	(40-140)	(40-140)	(40-140)	(40-140)			
480-50847-1	WCSB-20 (14-15)	35 X	102	100	37 X			
480-50847-5	WCSB-22 (2.5-3)	73	72	89	66			
480-50847-7	WCSB-21 (2.5-3)	83	75	91	72			
480-50847-9	WCSB-19 (2.5-3)	85	76	94	71			
480-50847-13	WCSB-17 (2.5-3)	34 X	90	107	29 X			
480-50847-19	WCSB-14 (7-8)	78	71	91	76			
LCS 480-154450/2-B	Lab Control Sample	74	66	83	68			
LCS 480-155085/2-B	Lab Control Sample	72	62	83	63			
LCSD 480-154450/3-B	Lab Control Sample Dup	72	74	89	66			
LCSD 480-155085/3-B	Lab Control Sample Dup	79	69	91	67			
MB 480-154450/1-B	Method Blank	80	82	96	75			
MB 480-155085/1-B	Method Blank	74	66	89	69			

#### **Surrogate Legend**

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

-0

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4.6

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### QC Sample Results

RL

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MDL Unit

mg/Kg

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mg/Kg 0.000670 mg/Kg

0.000500 mg/Kg 0.000363 mg/Kg

0.000610 mg/Kg

0.000612 mg/Kg

0.000710 mg/Kg

0.000304 mg/Kg

0.000251 mg/Kg

0.00250 mg/Kg

0.000700 mg/Kg

0.00183 mg/Kg

0.000328 mg/Kg

0.00250 mg/Kg

0.000401 mg/Kg

0.00421 mg/Kg

0.00250 mg/Kg

0.000450 mg/Kg

0.00250 mg/Kg

0.000484 mg/Kg

0.000660 mg/Kg

0.000361 mg/Kg

0.000640 mg/Kg

0.000302 mg/Kg

0.000640 mg/Kg

0.000413 mg/Kg

0.00210 mg/Kg

0.000345 mg/Kg

0.000642 mg/Kg

0.000586 mg/Kg

0.00113

0.000309

0.000720

0.000811

0.000650

0.000531

0.000509

0.000960

0.00250

0.000391

0.000322

0.000257

0.000300

0.0241

0.000850

0.000590

0.00164

0.000245

0.000880

D

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

мв мв

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Result Qualifier

TestAmerica Job ID: 480-50847-1

### Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-154424/6

**Matrix: Solid** 

Analyte

Analysis Batch: 154424

1,1,1,2-Tetrachloroethane

1,1,2,2-Tetrachloroethane

1,1,1-Trichloroethane

1,1,2-Trichloroethane

1,1-Dichloroethane

1,1-Dichloroethene

1,1-Dichloropropene

1,2,3-Trichlorobenzene

1,2,3-Trichloropropane

1,2,4-Trichlorobenzene

1,2,4-Trimethylbenzene

1,2-Dichlorobenzene

1,2-Dichloroethane

1,2-Dichloropropane

1,3-Dichlorobenzene

1,3-Dichloropropane

1,4-Dichlorobenzene

2,2-Dichloropropane

2-Butanone (MEK)

2-Chlorotoluene

4-Chlorotoluene

Bromobenzene

Bromomethane

Carbon disulfide

Chlorobenzene

Chloroethane

Chloromethane

Chloroform

Ethyl ether

Ethylbenzene

Ethylene Dibromide

Hexachlorobutadiene

Carbon tetrachloride

Chlorobromomethane

Chlorodibromomethane

cis-1.2-Dichloroethene

cis-1,3-Dichloropropene

Dichlorobromomethane

Dichlorodifluoromethane

Bromoform

4-Isopropyltoluene

4-Methyl-2-pentanone (MIBK)

2-Hexanone

Acetone Benzene

1.4-Dioxane

1,3,5-Trimethylbenzene

1,2-Dibromo-3-Chloropropane

Client Sample ID: Method Blank Prep Type: Total/NA

Prepared	Analyzed	Dil Fac
	11/26/13 12:23	1
	11/26/13 12:23	1
	11/26/13 12:23	1
	11/26/13 12:23	1
	11/26/13 12:23	1
	11/26/13 12:23	1
	11/26/13 12:23	1
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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-154424/6

**Matrix: Solid** 

**Analysis Batch: 154424** 

Client Sample ID: Method Blank Prep Type: Total/NA

MB MB Result Qualifier RL MDL Unit D Dil Fac Analyte Prepared Analyzed <0.00250 0.00250 0.00250 11/26/13 12:23 Isopropyl ether mg/Kg Isopropylbenzene <0.00250 0.00250 0.000754 mg/Kg 11/26/13 12:23 0.000491 mg/Kg Methyl tert-butyl ether < 0.00250 0.00250 11/26/13 12:23 Methylene Chloride <0.00250 0.00250 0.00230 mg/Kg 11/26/13 12:23 < 0.00500 0.00500 0.000840 mg/Kg 11/26/13 12:23 m-Xylene & p-Xylene Naphthalene <0.0250 0.0250 0.000670 mg/Kg 11/26/13 12:23 n-Butylbenzene 0.00250 0.000435 mg/Kg 11/26/13 12:23 < 0.00250 N-Propylbenzene < 0.00250 0.00250 0.000400 mg/Kg 11/26/13 12:23 o-Xylene < 0.00250 0.00250 0.000653 mg/Kg 11/26/13 12:23 sec-Butylbenzene < 0.00250 0.00250 0.000435 mg/Kg 11/26/13 12:23 Styrene < 0.00250 0.00250 0.000250 mg/Kg 11/26/13 12:23 Tert-amyl methyl ether < 0.00250 0.00250 0.00128 mg/Kg 11/26/13 12:23 Tert-butyl ethyl ether < 0.00250 0.00250 0.00220 mg/Kg 11/26/13 12:23 0.000520 mg/Kg tert-Butylbenzene < 0.00250 0.00250 11/26/13 12:23 Tetrachloroethene 0.00250 0.000671 mg/Kg 11/26/13 12:23 < 0.00250 Tetrahydrofuran 0.0500 0.00460 mg/Kg 11/26/13 12:23 <0.0500 0.00250 0.000378 mg/Kg Toluene <0.00250 11/26/13 12:23 trans-1,2-Dichloroethene < 0.00250 0.00250 0.000516 mg/Kg 11/26/13 12:23 trans-1,3-Dichloropropene <0.00250 0.00250 0.00220 mg/Kg 11/26/13 12:23 Trichloroethene < 0.00250 0.00250 0.00110 mg/Kg

MB MB

< 0.00500

< 0.00250

<0.00250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130		11/26/13 12:23	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		11/26/13 12:23	1
4-Bromofluorobenzene (Surr)	95		70 - 130		11/26/13 12:23	1

0.00500

0.00250

0.00250

0.000473 mg/Kg

0.000610 mg/Kg

0.000515 mg/Kg

Lab Sample ID: LCS 480-154424/4

**Matrix: Solid** 

Trichlorofluoromethane

Vinvl chloride

Dibromomethane

Analysis Batch: 154424

Client Sample I	D: Lab Control Sample
	Prep Type: Total/NA

11/26/13 12:23

11/26/13 12:23

11/26/13 12:23

11/26/13 12:23

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	0.0500	0.04851		mg/Kg		97	70 - 130
1,1,1-Trichloroethane	0.0500	0.04533		mg/Kg		91	70 _ 130
1,1,2,2-Tetrachloroethane	0.0500	0.05319		mg/Kg		106	70 _ 130
1,1,2-Trichloroethane	0.0500	0.05063		mg/Kg		101	70 - 130
1,1-Dichloroethane	0.0500	0.04964		mg/Kg		99	70 _ 130
1,1-Dichloroethene	0.0500	0.04300		mg/Kg		86	70 _ 130
1,1-Dichloropropene	0.0500	0.04672		mg/Kg		93	70 _ 130
1,2,3-Trichlorobenzene	0.0500	0.04910		mg/Kg		98	70 _ 130
1,2,3-Trichloropropane	0.0500	0.05322		mg/Kg		106	70 - 130
1,2,4-Trichlorobenzene	0.0500	0.04887		mg/Kg		98	70 _ 130
1,2,4-Trimethylbenzene	0.0500	0.04478		mg/Kg		90	70 _ 130
1,2-Dibromo-3-Chloropropane	0.0500	0.04950		mg/Kg		99	70 _ 130
1,2-Dichlorobenzene	0.0500	0.04828		mg/Kg		97	70 - 130
1,2-Dichloroethane	0.0500	0.05049		mg/Kg		101	70 - 130

## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-154424/4

Matrix: Solid

Client Sample ID:	<b>Lab Control Sample</b>
	Prep Type: Total/NA

Analysis Batch: 154424	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2-Dichloropropane	0.0500	0.05015		mg/Kg		100	70 - 130	
1,3,5-Trimethylbenzene	0.0500	0.04715		mg/Kg		94	70 - 130	
1,3-Dichlorobenzene	0.0500	0.04811		mg/Kg		96	70 - 130	
1,3-Dichloropropane	0.0500	0.05066		mg/Kg		101	70 - 130	
1,4-Dichlorobenzene	0.0500	0.04748		mg/Kg		95	70 - 130	
1,4-Dioxane	2.00	2.132		mg/Kg		107	70 - 130	
2,2-Dichloropropane	0.0500	0.04338		mg/Kg		87	70 - 130	
2-Butanone (MEK)	0.250	0.3491	*	mg/Kg		140	70 - 130	
2-Chlorotoluene	0.0500	0.04868		mg/Kg		97	70 - 130	
2-Hexanone	0.250	0.2541		mg/Kg		102	70 - 130	
4-Chlorotoluene	0.0500	0.05181		mg/Kg		104	70 - 130	
4-Isopropyltoluene	0.0500	0.04715		mg/Kg		94	70 - 130	
4-Methyl-2-pentanone (MIBK)	0.250	0.2530		mg/Kg		101	70 - 130	
Acetone	0.250	0.3183		mg/Kg		127	70 - 130	
Benzene	0.0500	0.04700		mg/Kg		94	70 - 130	
Bromobenzene	0.0500	0.04857		mg/Kg		97	70 - 130	
Bromoform	0.0500	0.04492		mg/Kg		90	70 - 130	
Bromomethane	0.0500	0.05282		mg/Kg		106	70 - 130 70 - 130	
Carbon disulfide	0.0500	0.03202		mg/Kg		95	70 - 130	
Carbon tetrachloride	0.0500	0.04742		mg/Kg		88	70 - 130	
	0.0500	0.04390				95	70 - 130	
Chlorobromomethane	0.0500	0.04769		mg/Kg		99	70 - 130 70 - 130	
Chlorodibromomethane				mg/Kg		104	70 - 130	
Chloroethane	0.0500	0.05177 0.05357		mg/Kg		104	70 - 130 70 - 130	
Chloroform	0.0500			mg/Kg			70 - 130 70 - 130	
	0.0500	0.04852		mg/Kg		97		
Chloromethane	0.0500	0.04453		mg/Kg		89	70 - 130	
cis-1,2-Dichloroethene	0.0500	0.04864		mg/Kg		97	70 <sub>-</sub> 130	
cis-1,3-Dichloropropene	0.0500	0.05167		mg/Kg		103	70 - 130	
Dichlorobromomethane	0.0500	0.05078		mg/Kg		102	70 - 130	
Dichlorodifluoromethane	0.100	0.07825		mg/Kg		78	70 - 130	
Ethyl ether	0.0500	0.04833		mg/Kg		97	70 - 130	
Ethylbenzene	0.0500	0.04467		mg/Kg		89	70 - 130	
Ethylene Dibromide	0.0500	0.05053		mg/Kg		101	70 - 130	
Hexachlorobutadiene	0.0500	0.04666		mg/Kg		93	70 - 130	
Isopropyl ether	0.0500	0.05011		mg/Kg		100	70 - 130	
Isopropylbenzene	0.0500	0.04760		mg/Kg		95	70 - 130	
Methyl tert-butyl ether	0.0500	0.04572		mg/Kg		91	70 - 130	
Methylene Chloride	0.0500	0.04628		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	0.100	0.08631		mg/Kg		86	70 - 130	
Naphthalene	0.0500	0.04613		mg/Kg		92	70 - 130	
n-Butylbenzene	0.0500	0.04728		mg/Kg		95	70 - 130	
N-Propylbenzene	0.0500	0.04776		mg/Kg		96	70 - 130	
o-Xylene	0.0500	0.04500		mg/Kg		90	70 - 130	
sec-Butylbenzene	0.0500	0.04716		mg/Kg		94	70 - 130	
Styrene	0.0500	0.04809		mg/Kg		96	70 - 130	
Tert-amyl methyl ether	0.0500	0.04947		mg/Kg		99	70 - 130	
Tert-butyl ethyl ether	0.0500	0.04840		mg/Kg		97	70 - 130	
tert-Butylbenzene	0.0500	0.04632		mg/Kg		93	70 - 130	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-154424/4

**Matrix: Solid** 

Analysis Batch: 154424

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Tetrachloroethene	0.0500	0.04785		mg/Kg		96	70 - 130
Tetrahydrofuran	0.250	0.2532		mg/Kg		101	70 - 130
Гoluene	0.0500	0.04169		mg/Kg		83	70 _ 130
rans-1,2-Dichloroethene	0.0500	0.04601		mg/Kg		92	70 - 130
rans-1,3-Dichloropropene	0.0500	0.04985		mg/Kg		100	70 - 130
richloroethene	0.0500	0.04717		mg/Kg		94	70 - 130
richlorofluoromethane	0.0500	0.05005		mg/Kg		100	70 - 130
/inyl chloride	0.0500	0.04613		mg/Kg		92	70 - 130
Dibromomethane	0.0500	0.05134		mg/Kg		103	70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 480-154424/5

Matrix: Solid

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 154424									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added		Qualifier	Unit	_ D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	0.0500	0.04910		mg/Kg		98	70 - 130	1	20
1,1,1-Trichloroethane	0.0500	0.04672		mg/Kg		93	70 - 130	3	20
1,1,2,2-Tetrachloroethane	0.0500	0.05031		mg/Kg		101	70 - 130	6	20
1,1,2-Trichloroethane	0.0500	0.04980		mg/Kg		100	70 - 130	2	20
1,1-Dichloroethane	0.0500	0.04976		mg/Kg		100	70 - 130	0	20
1,1-Dichloroethene	0.0500	0.04422		mg/Kg		88	70 - 130	3	20
1,1-Dichloropropene	0.0500	0.04716		mg/Kg		94	70 - 130	1	20
1,2,3-Trichlorobenzene	0.0500	0.05078		mg/Kg		102	70 - 130	3	20
1,2,3-Trichloropropane	0.0500	0.05121		mg/Kg		102	70 - 130	4	20
1,2,4-Trichlorobenzene	0.0500	0.05005		mg/Kg		100	70 - 130	2	20
1,2,4-Trimethylbenzene	0.0500	0.04461		mg/Kg		89	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	0.0500	0.04624		mg/Kg		92	70 - 130	7	20
1,2-Dichlorobenzene	0.0500	0.04889		mg/Kg		98	70 - 130	1	20
1,2-Dichloroethane	0.0500	0.05019		mg/Kg		100	70 - 130	1	20
1,2-Dichloropropane	0.0500	0.05061		mg/Kg		101	70 - 130	1	20
1,3,5-Trimethylbenzene	0.0500	0.04712		mg/Kg		94	70 - 130	0	20
1,3-Dichlorobenzene	0.0500	0.04839		mg/Kg		97	70 - 130	1	20
1,3-Dichloropropane	0.0500	0.04949		mg/Kg		99	70 - 130	2	20
1,4-Dichlorobenzene	0.0500	0.04779		mg/Kg		96	70 - 130	1	20
1,4-Dioxane	2.00	1.948		mg/Kg		97	70 - 130	9	20
2,2-Dichloropropane	0.0500	0.04442		mg/Kg		89	70 - 130	2	20
2-Butanone (MEK)	0.250	0.3239		mg/Kg		130	70 - 130	7	20
2-Chlorotoluene	0.0500	0.04863		mg/Kg		97	70 - 130	0	20
2-Hexanone	0.250	0.2355		mg/Kg		94	70 - 130	8	20
4-Chlorotoluene	0.0500	0.05166		mg/Kg		103	70 - 130	0	20
4-Isopropyltoluene	0.0500	0.04821		mg/Kg		96	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	0.250	0.2372		mg/Kg		95	70 - 130	6	20
Acetone	0.250	0.2943		mg/Kg		118	70 - 130	8	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-154424/5

Matrix: Solid

Analysis Batch: 154424

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

marysis batch. 134424	Spike	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04758		mg/Kg		95	70 - 130	1	20
Bromobenzene	0.0500	0.04871		mg/Kg		97	70 - 130	0	20
Bromoform	0.0500	0.04370		mg/Kg		87	70 - 130	3	20
Bromomethane	0.0500	0.05350		mg/Kg		107	70 - 130	1	20
Carbon disulfide	0.0500	0.04820		mg/Kg		96	70 - 130	2	20
Carbon tetrachloride	0.0500	0.04559		mg/Kg		91	70 - 130	4	20
Chlorobenzene	0.0500	0.04765		mg/Kg		95	70 - 130	0	20
Chlorobromomethane	0.0500	0.04930		mg/Kg		99	70 - 130	1	20
Chlorodibromomethane	0.0500	0.05077		mg/Kg		102	70 - 130	2	20
Chloroethane	0.0500	0.05694		mg/Kg		114	70 - 130	6	20
Chloroform	0.0500	0.04878		mg/Kg		98	70 - 130	1	20
Chloromethane	0.0500	0.04581		mg/Kg		92	70 - 130	3	20
cis-1,2-Dichloroethene	0.0500	0.04872		mg/Kg		97	70 - 130	0	20
cis-1,3-Dichloropropene	0.0500	0.05158		mg/Kg		103	70 - 130	0	20
Dichlorobromomethane	0.0500	0.05082		mg/Kg		102	70 - 130	0	20
Dichlorodifluoromethane	0.100	0.07868		mg/Kg		79	70 - 130	1	20
Ethyl ether	0.0500	0.04878		mg/Kg		98	70 - 130	1	20
Ethylbenzene	0.0500	0.04503		mg/Kg		90	70 - 130	1	20
Ethylene Dibromide	0.0500	0.04894		mg/Kg		98	70 - 130	3	20
Hexachlorobutadiene	0.0500	0.04891		mg/Kg		98	70 - 130	5	20
Isopropyl ether	0.0500	0.05004		mg/Kg		100	70 - 130	0	20
Isopropylbenzene	0.0500	0.04787		mg/Kg		96	70 - 130	1	20
Methyl tert-butyl ether	0.0500	0.04521		mg/Kg		90	70 - 130	1	20
Methylene Chloride	0.0500	0.04657		mg/Kg		93	70 - 130	1	20
m-Xylene & p-Xylene	0.100	0.08640		mg/Kg		86	70 - 130	0	20
Naphthalene	0.0500	0.04727		mg/Kg		95	70 - 130	2	20
n-Butylbenzene	0.0500	0.04843		mg/Kg		97	70 - 130	2	20
N-Propylbenzene	0.0500	0.04773		mg/Kg		95	70 - 130	0	20
o-Xylene	0.0500	0.04518		mg/Kg		90	70 - 130	0	20
sec-Butylbenzene	0.0500	0.04803		mg/Kg		96	70 - 130	2	20
Styrene	0.0500	0.04827		mg/Kg		97	70 - 130	0	20
Tert-amyl methyl ether	0.0500	0.04940		mg/Kg		99	70 - 130	0	20
Tert-butyl ethyl ether	0.0500	0.04886		mg/Kg		98	70 - 130	1	20
tert-Butylbenzene	0.0500	0.04751		mg/Kg		95	70 - 130	3	20
Tetrachloroethene	0.0500	0.04882		mg/Kg		98	70 - 130	2	20
Tetrahydrofuran	0.250	0.2371		mg/Kg		95	70 - 130	7	20
Toluene	0.0500	0.04167		mg/Kg		83	70 - 130	0	20
trans-1,2-Dichloroethene	0.0500	0.04679		mg/Kg		94	70 - 130	2	20
trans-1,3-Dichloropropene	0.0500	0.04882		mg/Kg		98	70 - 130	2	20
Trichloroethene	0.0500	0.04768		mg/Kg		95	70 - 130	1	20
Trichlorofluoromethane	0.0500	0.05123		mg/Kg		102	70 - 130	2	20
Vinyl chloride	0.0500	0.04745		mg/Kg		95	70 - 130	3	20
Dibromomethane	0.0500	0.05059		mg/Kg		101	70 - 130	1	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-154701/3-A

Matrix: Solid

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Analysis Batch: 154695								Prep Batch	: 154701
•	МВ	MB						•	
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.125		0.125	0.0250	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,1,1-Trichloroethane	<0.125		0.125	0.0182	mg/Kg		11/27/13 11:06	11/27/13 12:48	•
1,1,2,2-Tetrachloroethane	<0.125		0.125	0.0406	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,1,2-Trichloroethane	<0.125		0.125	0.0325	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,1-Dichloroethane	<0.125		0.125	0.0305	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,1-Dichloroethene	<0.125		0.125	0.0306	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,1-Dichloropropene	<0.125		0.125	0.0355	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,2,3-Trichlorobenzene	<0.125		0.125	0.0266	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,2,3-Trichloropropane	<0.125		0.125	0.0255	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,2,4-Trichlorobenzene	<0.125		0.125	0.0152	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,2,4-Trimethylbenzene	<0.125		0.125	0.0480	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,2-Dibromo-3-Chloropropane	<1.25		1.25	0.125	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,2-Dichlorobenzene	<0.125		0.125	0.0196	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,2-Dichloroethane	<0.125		0.125	0.0126	mg/Kg		11/27/13 11:06	11/27/13 12:48	,
1,2-Dichloropropane	<0.125		0.125	0.125	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,3,5-Trimethylbenzene	<0.125		0.125	0.0161	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,3-Dichlorobenzene	<0.125		0.125	0.0129	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,3-Dichloropropane	<0.125		0.125	0.0150	mg/Kg		11/27/13 11:06	11/27/13 12:48	
1,4-Dichlorobenzene	<0.125		0.125	0.0350	mg/Kg		11/27/13 11:06	11/27/13 12:48	•
1,4-Dioxane	<12.5		12.5	1.21	mg/Kg		11/27/13 11:06	11/27/13 12:48	
2,2-Dichloropropane	<0.125		0.125	0.0425			11/27/13 11:06	11/27/13 12:48	
2-Butanone (MEK)	<1.25		1.25	0.0915			11/27/13 11:06	11/27/13 12:48	
2-Chlorotoluene	<0.125		0.125	0.0164			11/27/13 11:06	11/27/13 12:48	
2-Hexanone	<1.25		1.25		mg/Kg		11/27/13 11:06	11/27/13 12:48	
4-Chlorotoluene	<0.125		0.125	0.0295	mg/Kg		11/27/13 11:06	11/27/13 12:48	
4-Isopropyltoluene	<0.125		0.125	0.0201			11/27/13 11:06	11/27/13 12:48	
4-Methyl-2-pentanone (MIBK)	<1.25		1.25	0.0820			11/27/13 11:06	11/27/13 12:48	
Acetone	<12.5		12.5	0.211	mg/Kg		11/27/13 11:06	11/27/13 12:48	
Benzene	<0.125		0.125	0.0123	mg/Kg		11/27/13 11:06	11/27/13 12:48	
Bromobenzene	<0.125		0.125	0.0440			11/27/13 11:06	11/27/13 12:48	
Bromoform	<0.125		0.125		mg/Kg		11/27/13 11:06	11/27/13 12:48	
Bromomethane	<0.250		0.250	0.0225			11/27/13 11:06	11/27/13 12:48	
Carbon disulfide	<0.125		0.125		mg/Kg		11/27/13 11:06	11/27/13 12:48	
Carbon tetrachloride	<0.125		0.125	0.0242			11/27/13 11:06	11/27/13 12:48	
Chlorobenzene	<0.125		0.125	0.0330			11/27/13 11:06	11/27/13 12:48	
Chlorobromomethane	<0.125		0.125	0.0181			11/27/13 11:06	11/27/13 12:48	
Chlorodibromomethane	<0.125		0.125	0.0320			11/27/13 11:06	11/27/13 12:48	
Chloroethane	<0.250		0.250	0.0565			11/27/13 11:06	11/27/13 12:48	
Chloroform	<0.125		0.125	0.0155			11/27/13 11:06	11/27/13 12:48	
Chloromethane	<0.250		0.250	0.0151			11/27/13 11:06	11/27/13 12:48	
cis-1,2-Dichloroethene	<0.125		0.125	0.0320			11/27/13 11:06	11/27/13 12:48	
cis-1,3-Dichloropropene	<0.125		0.125	0.0360			11/27/13 11:06	11/27/13 12:48	
Dichlorobromomethane	<0.125		0.125	0.0335			11/27/13 11:06	11/27/13 12:48	
Dichlorodifluoromethane	<0.250		0.125	0.0207			11/27/13 11:06	11/27/13 12:48	
Ethyl ether	<0.125		0.125		mg/Kg		11/27/13 11:06	11/27/13 12:48	
Ethylbenzene	<0.125		0.125	0.0173			11/27/13 11:06	11/27/13 12:48	
Ethylene Dibromide	<0.125		0.125	0.0173			11/27/13 11:06	11/27/13 12:48	
Hexachlorobutadiene	<0.125		0.125	0.0321			11/27/13 11:06	11/27/13 12:48	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 480-154701/3-A

Matrix: Solid

Analysis Batch: 154695

Client Sample ID: Method Blank
Prep Type: Total/NA

Prep Batch: 154701

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<0.125		0.125	0.125	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Isopropylbenzene	<0.125		0.125	0.0377	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Methyl tert-butyl ether	<0.125		0.125	0.0246	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Methylene Chloride	<0.125		0.125	0.115	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
m-Xylene & p-Xylene	<0.250		0.250	0.0420	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Naphthalene	<1.25		1.25	0.0335	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
n-Butylbenzene	<0.125		0.125	0.0218	mg/Kg		11/27/13 11:06	11/27/13 12:48	
N-Propylbenzene	<0.125		0.125	0.0200	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
o-Xylene	<0.125		0.125	0.0327	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
sec-Butylbenzene	<0.125		0.125	0.0218	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Styrene	<0.125		0.125	0.0125	mg/Kg		11/27/13 11:06	11/27/13 12:48	•
Tert-amyl methyl ether	<0.125		0.125	0.0640	mg/Kg		11/27/13 11:06	11/27/13 12:48	•
Tert-butyl ethyl ether	<0.125		0.125	0.110	mg/Kg		11/27/13 11:06	11/27/13 12:48	
tert-Butylbenzene	<0.125		0.125	0.0260	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Tetrachloroethene	<0.125		0.125	0.0336	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Tetrahydrofuran	<2.50		2.50	0.230	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Toluene	<0.125		0.125	0.0189	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
trans-1,2-Dichloroethene	<0.125		0.125	0.0258	mg/Kg		11/27/13 11:06	11/27/13 12:48	•
trans-1,3-Dichloropropene	<0.125		0.125	0.110	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Trichloroethene	<0.125		0.125	0.0550	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Trichlorofluoromethane	<0.250		0.250	0.0237	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Vinyl chloride	<0.125		0.125	0.0305	mg/Kg		11/27/13 11:06	11/27/13 12:48	1
Dibromomethane	<0.125		0.125	0.0258	mg/Kg		11/27/13 11:06	11/27/13 12:48	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130	11/27/13 11:06	11/27/13 12:48	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130	11/27/13 11:06	11/27/13 12:48	1
4-Bromofluorobenzene (Surr)	94		70 - 130	11/27/13 11:06	11/27/13 12:48	1

Lab Sample ID: LCS 480-154701/1-A

Matrix: Solid

Analysis Batch: 154695

Client Sample ID:	<b>Lab Control Sample</b>
	Prep Type: Total/NA

**Prep Batch: 154701** 

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	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1,2-Tetrachloroethane	1.25	1.328		mg/Kg		106	70 - 130	
1,1,1-Trichloroethane	1.25	1.409		mg/Kg		113	70 - 130	
1,1,2,2-Tetrachloroethane	1.25	1.259		mg/Kg		101	70 - 130	
1,1,2-Trichloroethane	1.25	1.301		mg/Kg		104	70 - 130	
1,1-Dichloroethane	1.25	1.418		mg/Kg		113	70 - 130	
1,1-Dichloroethene	1.25	1.395		mg/Kg		112	70 - 130	
1,1-Dichloropropene	1.25	1.420		mg/Kg		114	70 - 130	
1,2,3-Trichlorobenzene	1.25	1.172		mg/Kg		94	70 - 130	
1,2,3-Trichloropropane	1.25	1.270		mg/Kg		102	70 - 130	
1,2,4-Trichlorobenzene	1.25	1.191		mg/Kg		95	70 - 130	
1,2,4-Trimethylbenzene	1.25	1.292		mg/Kg		103	70 - 130	
1,2-Dibromo-3-Chloropropane	1.25	1.133	J	mg/Kg		91	70 _ 130	
1,2-Dichlorobenzene	1.25	1.267		mg/Kg		101	70 - 130	
1,2-Dichloroethane	1.25	1.356		mg/Kg		108	70 - 130	

TestAmerica Buffalo

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## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-154701/1-A

Matrix: Solid

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Analysis Batch: 154695	Spike	ıcs	LCS				Prep Batch: 1547 %Rec.	70'
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
1,2-Dichloropropane		1.422	Quaimer	mg/Kg		114	70 - 130	
1,3,5-Trimethylbenzene	1.25	1.294		mg/Kg		104	70 - 130	
1,3-Dichlorobenzene	1.25	1.294		mg/Kg		103	70 <sub>-</sub> 130	
	1.25	1.336				107	70 - 130 70 - 130	
1,3-Dichloropropane	1.25			mg/Kg		99		
1,4-Dichlorobenzene		1.243		mg/Kg			70 <sub>-</sub> 130	
1,4-Dioxane	50.0	50.78		mg/Kg		102	70 - 130	
2,2-Dichloropropane	1.25	1.477		mg/Kg		118	70 - 130	
2-Butanone (MEK)	6.25	9.063	*	mg/Kg		145	70 - 130	
2-Chlorotoluene	1.25	1.526		mg/Kg		122	70 - 130	
2-Hexanone	6.25	6.138		mg/Kg		98	70 - 130	
4-Chlorotoluene	1.25	1.493		mg/Kg		119	70 - 130	
4-Isopropyltoluene	1.25	1.281		mg/Kg		102	70 - 130	
4-Methyl-2-pentanone (MIBK)	6.25	6.149		mg/Kg		98	70 - 130	
Acetone	6.25	6.256	J	mg/Kg		100	70 - 130	
Benzene	1.25	1.407		mg/Kg		113	70 - 130	
Bromobenzene	1.25	1.305		mg/Kg		104	70 - 130	
Bromoform	1.25	1.233		mg/Kg		99	70 - 130	
Bromomethane	1.25	1.391		mg/Kg		111	70 - 130	
Carbon disulfide	1.25	1.416		mg/Kg		113	70 - 130	
Carbon tetrachloride	1.25	1.443		mg/Kg		115	70 - 130	
Chlorobenzene	1.25	1.333		mg/Kg		107	70 - 130	
Chlorobromomethane	1.25	1.331		mg/Kg		106	70 - 130	
Chlorodibromomethane	1.25	1.344		mg/Kg		107	70 - 130	
Chloroethane	1.25	1.481		mg/Kg		118	70 - 130	
Chloroform	1.25	1.345		mg/Kg		108	70 - 130	
Chloromethane	1.25	1.242		mg/Kg		99	70 - 130	
cis-1,2-Dichloroethene	1.25	1.363		mg/Kg		109	70 - 130	
cis-1,3-Dichloropropene	1.25	1.466		mg/Kg		117	70 - 130	
Dichlorobromomethane	1.25	1.397		mg/Kg		112	70 - 130	
Dichlorodifluoromethane	2.50	2.661		mg/Kg		106	70 - 130	
Ethyl ether	1.25	1.354		mg/Kg		108	70 - 130	
Ethylbenzene	1.25	1.303				104	70 - 130	
Ethylene Dibromide	1.25	1.299		mg/Kg		104	70 <sub>-</sub> 130	
•				mg/Kg				
Hexachlorobutadiene	1.25	1.283		mg/Kg		103	70 - 130	
Isopropyl ether	1.25	1.367		mg/Kg		109	70 - 130	
Isopropylbenzene	1.25	1.288		mg/Kg		103	70 - 130	
Methyl tert-butyl ether	1.25	1.357		mg/Kg		109	70 - 130	
Methylene Chloride	1.25	1.377		mg/Kg		110	70 - 130	
m-Xylene & p-Xylene	2.50	2.693		mg/Kg		108	70 - 130	
Naphthalene	1.25	1.114	J	mg/Kg		89	70 - 130	
n-Butylbenzene	1.25	1.266		mg/Kg		101	70 - 130	
N-Propylbenzene	1.25	1.258		mg/Kg		101	70 - 130	
o-Xylene	1.25	1.306		mg/Kg		104	70 - 130	
sec-Butylbenzene	1.25	1.300		mg/Kg		104	70 - 130	
Styrene	1.25	1.304		mg/Kg		104	70 - 130	
Tert-amyl methyl ether	1.25	1.416		mg/Kg		113	70 - 130	
Tert-butyl ethyl ether	1.25	1.397		mg/Kg		112	70 - 130	
tert-Butylbenzene	1.25	1.322		mg/Kg		106	70 - 130	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-154701/1-A

**Matrix: Solid** 

Analysis Batch: 154695

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA Prep Batch: 154701

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	1.25	1.397	-	mg/Kg		112	70 - 130	
Tetrahydrofuran	6.25	6.345		mg/Kg		102	70 - 130	
Toluene	1.25	1.346		mg/Kg		108	70 - 130	
trans-1,2-Dichloroethene	1.25	1.400		mg/Kg		112	70 - 130	
trans-1,3-Dichloropropene	1.25	1.355		mg/Kg		108	70 - 130	
Trichloroethene	1.25	1.395		mg/Kg		112	70 - 130	
Trichlorofluoromethane	1.25	1.444		mg/Kg		116	70 - 130	
Vinyl chloride	1.25	1.416		mg/Kg		113	70 - 130	
Dibromomethane	1.25	1.376		mg/Kg		110	70 - 130	

LCS LCS

Surrogate	%Recovery Quali	fier Limits
Toluene-d8 (Surr)	100	70 - 130
1,2-Dichloroethane-d4 (Surr)	107	70 - 130
4-Bromofluorobenzene (Surr)	98	70 - 130

Lab Sample ID: LCSD 480-154701/2-A

Matrix: Solid

**Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA

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Analysis Batch: 154695							Prep I	Batch: 1	54701
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	1.25	1.279		mg/Kg		102	70 - 130	4	20
1,1,1-Trichloroethane	1.25	1.305		mg/Kg		104	70 - 130	8	20
1,1,2,2-Tetrachloroethane	1.25	1.228		mg/Kg		98	70 - 130	3	20
1,1,2-Trichloroethane	1.25	1.254		mg/Kg		100	70 - 130	4	20
1,1-Dichloroethane	1.25	1.349		mg/Kg		108	70 - 130	5	20
1,1-Dichloroethene	1.25	1.314		mg/Kg		105	70 - 130	6	20
1,1-Dichloropropene	1.25	1.319		mg/Kg		106	70 - 130	7	20
1,2,3-Trichlorobenzene	1.25	1.190		mg/Kg		95	70 - 130	2	20
1,2,3-Trichloropropane	1.25	1.241		mg/Kg		99	70 - 130	2	20
1,2,4-Trichlorobenzene	1.25	1.189		mg/Kg		95	70 - 130	0	20
1,2,4-Trimethylbenzene	1.25	1.232		mg/Kg		99	70 - 130	5	20
1,2-Dibromo-3-Chloropropane	1.25	1.117	J	mg/Kg		89	70 - 130	1	20
1,2-Dichlorobenzene	1.25	1.225		mg/Kg		98	70 - 130	3	20
1,2-Dichloroethane	1.25	1.291		mg/Kg		103	70 - 130	5	20
1,2-Dichloropropane	1.25	1.366		mg/Kg		109	70 - 130	4	20
1,3,5-Trimethylbenzene	1.25	1.228		mg/Kg		98	70 - 130	5	20
1,3-Dichlorobenzene	1.25	1.235		mg/Kg		99	70 - 130	4	20
1,3-Dichloropropane	1.25	1.294		mg/Kg		104	70 - 130	3	20
1,4-Dichlorobenzene	1.25	1.203		mg/Kg		96	70 - 130	3	20
1,4-Dioxane	50.0	50.95		mg/Kg		102	70 - 130	0	20
2,2-Dichloropropane	1.25	1.376		mg/Kg		110	70 - 130	7	20
2-Butanone (MEK)	6.25	8.873	*	mg/Kg		142	70 - 130	2	20
2-Chlorotoluene	1.25	1.457		mg/Kg		117	70 - 130	5	20
2-Hexanone	6.25	6.136		mg/Kg		98	70 - 130	0	20
4-Chlorotoluene	1.25	1.427		mg/Kg		114	70 - 130	5	20
4-Isopropyltoluene	1.25	1.226		mg/Kg		98	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	6.25	6.121		mg/Kg		98	70 - 130	0	20
Acetone	6.25	6.073	J	mg/Kg		97	70 - 130	3	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-154701/2-A

Matrix: Solid

Analysis Batch: 154695

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 154701** 

Analysis Batch: 154695	Spike	LCSD	CSD LCSD %Rec.					batcii. I	154701 RPD
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	1.25	1.326		mg/Kg		106	70 - 130	6	20
Bromobenzene	1.25	1.241		mg/Kg		99	70 <sub>-</sub> 130	5	20
Bromoform	1.25	1.208		mg/Kg		97	70 - 130	2	20
Bromomethane	1.25	1.322		mg/Kg		106	70 - 130	5	20
Carbon disulfide	1.25	1.338		mg/Kg		107	70 <sub>-</sub> 130	6	20
Carbon tetrachloride	1.25	1.358		mg/Kg		109	70 - 130	6	20
Chlorobenzene	1.25	1.272		mg/Kg		102	70 <sub>-</sub> 130	5	20
Chlorobromomethane	1.25	1.300		mg/Kg		104	70 <sub>-</sub> 130	2	20
Chlorodibromomethane	1.25	1.317		mg/Kg		105	70 - 130	2	20
Chloroethane	1.25	1.360		mg/Kg		109	70 <sub>-</sub> 130	8	20
Chloroform	1.25	1.270		mg/Kg		102	70 <sub>-</sub> 130	6	20
Chloromethane	1.25	1.142		mg/Kg		91	70 - 130	8	20
cis-1,2-Dichloroethene	1.25	1.281		mg/Kg		102	70 <sub>-</sub> 130	6	20
cis-1,3-Dichloropropene	1.25	1.413		mg/Kg		113	70 - 130	4	20
Dichlorobromomethane	1.25	1.320		mg/Kg		106	70 - 130	6	20
Dichlorodifluoromethane	2.50	2.465		mg/Kg		99	70 - 130	8	20
Ethyl ether	1.25	1.289		mg/Kg		103	70 <sub>-</sub> 130	5	20
Ethylbenzene	1.25	1.247		mg/Kg		100	70 - 130	4	20
Ethylene Dibromide	1.25	1.271		mg/Kg		102	70 - 130	2	20
Hexachlorobutadiene	1.25	1.228		mg/Kg		98	70 <sub>-</sub> 130	4	20
Isopropyl ether	1.25	1.299		mg/Kg		104	70 - 130	5	20
Isopropylbenzene	1.25	1.235		mg/Kg		99	70 - 130	4	20
Methyl tert-butyl ether	1.25	1.335		mg/Kg		107	70 - 130	2	20
Methylene Chloride	1.25	1.316		mg/Kg		105	70 - 130	5	20
m-Xylene & p-Xylene	2.50	2.558		mg/Kg		102	70 - 130	5	20
Naphthalene	1.25	1.160	J	mg/Kg		93	70 - 130	4	20
n-Butylbenzene	1.25	1.217		mg/Kg		97	70 - 130	4	20
N-Propylbenzene	1.25	1.194		mg/Kg		96	70 - 130	5	20
o-Xylene	1.25	1.255		mg/Kg		100	70 - 130	4	20
sec-Butylbenzene	1.25	1.247		mg/Kg		100	70 - 130	4	20
Styrene	1.25	1.251		mg/Kg		100	70 - 130	4	20
Tert-amyl methyl ether	1.25	1.361		mg/Kg		109	70 - 130	4	20
Tert-butyl ethyl ether	1.25	1.340		mg/Kg		107	70 - 130	4	20
tert-Butylbenzene	1.25	1.281		mg/Kg		102	70 - 130	3	20
Tetrachloroethene	1.25	1.331		mg/Kg		107	70 - 130	5	20
Tetrahydrofuran	6.25	6.255		mg/Kg		100	70 - 130	1	20
Toluene	1.25	1.277		mg/Kg		102	70 - 130	5	20
trans-1,2-Dichloroethene	1.25	1.318		mg/Kg		105	70 - 130	6	20
trans-1,3-Dichloropropene	1.25	1.332		mg/Kg		107	70 - 130	2	20
Trichloroethene	1.25	1.304		mg/Kg		104	70 - 130	7	20
Trichlorofluoromethane	1.25	1.340		mg/Kg		107	70 - 130	7	20
Vinyl chloride	1.25	1.297		mg/Kg		104	70 - 130	9	20
Dibromomethane	1.25	1.317		mg/Kg		105	70 <sub>-</sub> 130	4	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

### Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 240-111692/23-A

Matrix: Solid

Analysis Batch: 112330

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 111692** 

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		11/29/13 07:58	12/05/13 13:13	1
PCB-1268	<0.0330		0.0330	0.0140	mg/Kg		11/29/13 07:58	12/05/13 13:13	1

мв мв

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76	30 - 150	11/29/13 07:58	12/05/13 13:13	1
Tetrachloro-m-xylene	85	30 - 150	11/29/13 07:58	12/05/13 13:13	1
DCB Decachlorobiphenyl	80	30 - 150	11/29/13 07:58	12/05/13 13:13	1
DCB Decachlorobiphenyl	82	30 - 150	11/29/13 07:58	12/05/13 13:13	1

Lab Sample ID: LCS 240-111692/24-A

**Matrix: Solid** 

**Analysis Batch: 112117** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA **Prep Batch: 111692** 

Spike LCS LCS Analyte Added Result Qualifier Limits Unit %Rec PCB-1016 0.333 0.2876 mg/Kg 86 40 - 140 PCB-1260 0.333 0.2978 mg/Kg 40 - 140

Spike

Added

0.333

0.333

LCSD LCSD

0.2963

0.2912

Result Qualifier

Unit

mg/Kg

mg/Kg

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	82		30 - 150
Tetrachloro-m-xylene	109		30 - 150
DCB Decachlorobiphenyl	88		30 - 150
DCB Decachlorobiphenyl	78		30 - 150

Lab Sample ID: LCSD 240-111692/25-A

**Matrix: Solid** 

Analyte

PCB-1016

PCB-1260

Analysis Batch: 112117

Client Sample	ID:	Lab	Contro	Sample	Dup

87

Prep Type: Total/NA **Prep Batch: 111692** 

2

30

%Rec. RPD Limits Limit 89 40 - 140 3 30 40 - 140

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	89		30 - 150
Tetrachloro-m-xylene	114		30 - 150
DCB Decachlorobiphenyl	75		30 - 150
DCB Decachlorobiphenyl	67		30 - 150

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Lab Sample ID: 480-50847-11 MS

Matrix: Solid

Analysis Batch: 112117

Sample Sample Sample Spike MS MS

Client Sample ID: WCSB-18 (2.5-3)

Prep Type: Total/NA

Prep Batch: 111692

	Janipie	Janipie	Opike	IVIO	IVIO				/01 <b>\C</b> C.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	<18.1		0.366	<18.1		mg/Kg	<del></del>	NC	40 - 140	
PCB-1260	69.4		0.366	67.38	4	mg/Kg	₽	-542	40 - 140	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene		X	30 - 150
Tetrachloro-m-xylene	0	X	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150

Lab Sample ID: 480-50847-11 MSD

Matrix: Solid

Analysis Batch: 112117

Client Sample ID: WCSB-18 (2.5-3)

Prep Type: Total/NA

Prep Batch: 111692

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	<18.1		0.357	<17.7		mg/Kg	<u> </u>	NC	40 - 140	NC	50
PCB-1260	69.4		0.357	52.53	4	mg/Kg	≎	-4711	40 - 140	25	50

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene		X	30 - 150
Tetrachloro-m-xylene	0	X	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150
DCB Decachlorobiphenyl	0	X	30 - 150

Lab Sample ID: MB 240-111693/23-A

Matrix: Solid

Analysis Batch: 112327

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111693

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		11/29/13 08:08	12/05/13 06:30	1
PCB-1268	<0.0330		0.0330	0.0140	mg/Kg		11/29/13 08:08	12/05/13 06:30	1

	MB MB				
Surrogate	%Recovery Qualifi	er Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73	30 - 150	11/29/13 08:08	12/05/13 06:30	1
Tetrachloro-m-xylene	86	30 - 150	11/29/13 08:08	12/05/13 06:30	1
DCB Decachlorobiphenyl	60	30 - 150	11/29/13 08:08	12/05/13 06:30	1
DCB Decachlorobiphenyl	74	30 - 150	11/29/13 08:08	12/05/13 06:30	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Lab Sample ID: LCS 240-111693/24-A

Matrix: Solid

Analysis Batch: 112327

Spike

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Prep Batch: 111693

%Rec.

Added Result Qualifier %Rec Limits Analyte Unit PCB-1016 0.333 0.3135 mg/Kg 94 40 - 140 PCB-1260 0.333 0.3289 mg/Kg 99 40 - 140

LCS LCS %Recovery Surrogate Qualifier I imits Tetrachloro-m-xylene 70 30 - 150 146 30 - 150 Tetrachloro-m-xylene DCB Decachlorobiphenyl 86 30 - 150 91 30 - 150 DCB Decachlorobiphenyl

Lab Sample ID: LCSD 240-111693/25-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 112327

Spike LCSD LCSD %Rec. RPD
Analysis Batch: 112327

Analysis Batch: 112327

Spike LCSD LCSD %Rec. RPD

Added Result Qualifier %Rec RPD Limit Analyte Unit Limits PCB-1016 0.333 0.2871 mg/Kg 86 40 140 9 30 PCB-1260 0.333 0.2456 mg/Kg 74 40 - 140 29 30

LCSD LCSD Qualifier Surrogate %Recovery Limits 83 30 - 150 Tetrachloro-m-xylene Tetrachloro-m-xylene 108 30 - 150 DCB Decachlorobiphenyl 60 30 - 150 DCB Decachlorobiphenyl 91 30 - 150

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-154450/1-B

Matrix: Solid

Client Sample ID: Method Blank
Prep Type: Total/NA

Analysis Batch: 154895

Prep Batch: 154450

	MB	MB						-	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.486		0.486	0.0788	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Acenaphthylene	<0.486		0.486	0.0875	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Anthracene	<0.486		0.486	0.0924	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[a]anthracene	<0.486		0.486	0.0739	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[a]pyrene	<0.486		0.486	0.0700	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[b]fluoranthene	<0.486		0.486	0.0691	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[g,h,i]perylene	<0.486		0.486	0.0827	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Benzo[k]fluoranthene	<0.486		0.486	0.0710	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
2-Methylnaphthalene	<0.486		0.486	0.0953	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Chrysene	<0.486		0.486	0.0866	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Dibenz(a,h)anthracene	0.1989	J	0.486	0.0681	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Fluoranthene	<0.486		0.486	0.0856	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Fluorene	<0.486		0.486	0.0973	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Indeno[1,2,3-cd]pyrene	0.2347	J	0.486	0.0710	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Naphthalene	<0.486		0.486	0.0817	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Phenanthrene	<0.486		0.486	0.0973	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
Pyrene	<0.486		0.486	0.0885	mg/Kg		11/26/13 10:37	11/29/13 14:54	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: MB 480-154450/1-B

**Matrix: Solid** 

**Analysis Batch: 154895** 

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 154450** 

		IVID	IVID							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	C11-C22 Aromatics (unadjusted)	<4.86		4.86	1.95	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
	C19-C36 Aliphatics	<4.86		4.86	1.95	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
	C9-C18 Aliphatics	<4.86		4.86	1.95	mg/Kg		11/26/13 10:37	11/29/13 14:54	1
ı										

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	80		40 - 140	11/26/13 10:37	11/29/13 14:54	1
2-Bromonaphthalene	82		40 - 140	11/26/13 10:37	11/29/13 14:54	1
2-Fluorobiphenyl	96		40 - 140	11/26/13 10:37	11/29/13 14:54	1
o-Terphenyl	75		40 - 140	11/26/13 10:37	11/29/13 14:54	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

**Prep Batch: 154450** 

**Matrix: Solid** Analysis Batch: 154895

Lab Sample ID: LCS 480-154450/2-B

Spike LCS LCS %Rec. Added Result Qualifier Unit D %Rec Limits

Analyte 4.77 2.562 Acenaphthene mg/Kg 54 40 - 140 Acenaphthylene 4.77 2.798 mg/Kg 59 40 - 140 Anthracene 4.77 3.465 mg/Kg 73 40 - 140 Benzo[a]anthracene 4.77 3.651 mg/Kg 77 40 - 140 Benzo[a]pyrene 4.77 3.605 76 40 - 140 mg/Kg Benzo[b]fluoranthene 3.573 75 40 - 140 4.77 mg/Kg 74 Benzo[g,h,i]perylene 4.77 3.519 40 - 140 mg/Kg Benzo[k]fluoranthene 4.77 3.639 76 40 - 140 mg/Kg 2.250 47 2-Methylnaphthalene 4.77 40 - 140 mg/Kg Chrysene 4.77 3.681 mg/Kg 77 40 - 140

Dibenz(a,h)anthracene 4.77 3.650 mg/Kg 77 40 - 140 Fluoranthene 4.77 3.600 mg/Kg 75 40 - 140 Fluorene 4.77 3.036 64 40 - 140 mg/Kg 75 Indeno[1,2,3-cd]pyrene 4.77 3.570 mg/Kg 40 - 140 Naphthalene 4.77 2.096 mg/Kg 44 40 - 140 71

Phenanthrene 3.403 40 - 140 4.77 mg/Kg 4.77 3.699 78 40 - 140 Pyrene mg/Kg C11-C22 Aromatics (unadjusted) 81.1 55.87 mg/Kg 69 40 - 140 C19-C36 Aliphatics 38.2 29.51 mg/Kg 77 40 - 140 C9-C18 Aliphatics

28.6 17.82 mg/Kg 40 - 140 LCS LCS

%Recovery Qualifier Limits Surrogate 1-Chlorooctadecane 74 40 - 140 66 40 - 140 2-Bromonaphthalene 2-Fluorobiphenyl 83 40 - 140 68 40 - 140 o-Terphenyl

Lab Sample ID: LCSD 480-154450/3-B

**Matrix: Solid** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 154895 Prep Batch: 154450 Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Unit RPD Limit Analyte %Rec Limits 4.84 Acenaphthene 2.749 mg/Kg 57 40 - 140

TestAmerica Job ID: 480-50847-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-154450/3-B

**Matrix: Solid** 

Analysis Batch: 154895

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 154450** 

Analysis Baton: 10-1000							1.00	Duton. I	04400
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	4.84	2.801		mg/Kg		58	40 - 140	0	25
Anthracene	4.84	3.503		mg/Kg		72	40 - 140	1	25
Benzo[a]anthracene	4.84	3.741		mg/Kg		77	40 - 140	2	25
Benzo[a]pyrene	4.84	3.675		mg/Kg		76	40 - 140	2	25
Benzo[b]fluoranthene	4.84	3.645		mg/Kg		75	40 - 140	2	25
Benzo[g,h,i]perylene	4.84	3.639		mg/Kg		75	40 - 140	3	25
Benzo[k]fluoranthene	4.84	3.744		mg/Kg		77	40 - 140	3	25
2-Methylnaphthalene	4.84	2.388		mg/Kg		49	40 - 140	6	25
Chrysene	4.84	3.780		mg/Kg		78	40 - 140	3	25
Dibenz(a,h)anthracene	4.84	3.697		mg/Kg		76	40 - 140	1	25
Fluoranthene	4.84	3.679		mg/Kg		76	40 - 140	2	25
Fluorene	4.84	3.067		mg/Kg		63	40 - 140	1	25
Indeno[1,2,3-cd]pyrene	4.84	3.633		mg/Kg		75	40 - 140	2	25
Naphthalene	4.84	2.146		mg/Kg		44	40 - 140	2	25
Phenanthrene	4.84	3.440		mg/Kg		71	40 - 140	1	25
Pyrene	4.84	3.757		mg/Kg		78	40 - 140	2	25
C11-C22 Aromatics (unadjusted)	82.2	57.37		mg/Kg		70	40 - 140	3	25
C19-C36 Aliphatics	38.7	29.07		mg/Kg		75	40 - 140	2	25

29.0

15.92

mg/Kg

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	72		40 - 140
2-Bromonaphthalene	74		40 - 140
2-Fluorobiphenyl	89		40 - 140
o-Terphenyl	66		40 - 140

Lab Sample ID: MB 480-155085/1-B

**Matrix: Solid** 

C9-C18 Aliphatics

Analysis Batch: 155521

Client Sample ID: Method Blank

40 - 140

Prep Type: Total/NA

**Prep Batch: 155085** 

-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.463		0.463	0.0749	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Acenaphthylene	< 0.463		0.463	0.0833	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Anthracene	< 0.463		0.463	0.0879	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Benzo[a]anthracene	<0.463		0.463	0.0703	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Benzo[a]pyrene	< 0.463		0.463	0.0666	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Benzo[b]fluoranthene	<0.463		0.463	0.0657	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Benzo[g,h,i]perylene	0.6319		0.463	0.0786	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Benzo[k]fluoranthene	< 0.463		0.463	0.0675	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
2-Methylnaphthalene	< 0.463		0.463	0.0907	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Chrysene	<0.463		0.463	0.0823	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Dibenz(a,h)anthracene	0.3201	J	0.463	0.0648	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Fluoranthene	< 0.463		0.463	0.0814	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Fluorene	<0.463		0.463	0.0925	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Indeno[1,2,3-cd]pyrene	0.3881	J	0.463	0.0675	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Naphthalene	< 0.463		0.463	0.0777	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Phenanthrene	<0.463		0.463	0.0925	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
Pyrene	<0.463		0.463	0.0842	mg/Kg		12/02/13 09:26	12/04/13 09:25	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: MB 480-155085/1-B

**Matrix: Solid** 

Analysis Batch: 155521

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 155085** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (unadjusted)	2.041	J	4.63	1.85	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
C19-C36 Aliphatics	2.629	J	4.63	1.85	mg/Kg		12/02/13 09:26	12/04/13 09:25	1
C9-C18 Aliphatics	<4.63		4.63	1.85	mg/Kg		12/02/13 09:26	12/04/13 09:25	1

MB MB

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	74	40 - 140	12/02/13 09:26	12/04/13 09:25	1
2-Bromonaphthalene	66	40 - 140	12/02/13 09:26	12/04/13 09:25	1
2-Fluorobiphenyl	89	40 - 140	12/02/13 09:26	12/04/13 09:25	1
o-Terphenyl	69	40 - 140	12/02/13 09:26	12/04/13 09:25	1

**Client Sample ID: Lab Control Sample** 

Lab Sample ID: LCS 480-155085/2-B

**Matrix: Solid** 

Fluorene

Pyrene

Naphthalene

Phenanthrene

C19-C36 Aliphatics

C9-C18 Aliphatics

Indeno[1,2,3-cd]pyrene

C11-C22 Aromatics (unadjusted)

Analysis Batch: 155521

Prep Type: Total/NA

**Prep Batch: 155085** 

-	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Acenaphthene	4.78	2.233		mg/Kg		47	40 - 140		
Acenaphthylene	4.78	2.697		mg/Kg		56	40 - 140		
Anthracene	4.78	3.279		mg/Kg		69	40 - 140		
Benzo[a]anthracene	4.78	3.464		mg/Kg		73	40 - 140		
Benzo[a]pyrene	4.78	3.400		mg/Kg		71	40 - 140		
Benzo[b]fluoranthene	4.78	3.353		mg/Kg		70	40 - 140		
Benzo[g,h,i]perylene	4.78	3.066		mg/Kg		64	40 - 140		
Benzo[k]fluoranthene	4.78	3.462		mg/Kg		72	40 - 140		
2-Methylnaphthalene	4.78	1.968		mg/Kg		41	40 - 140		
Chrysene	4.78	3.483		mg/Kg		73	40 - 140		
Dibenz(a,h)anthracene	4.78	3.261		mg/Kg		68	40 - 140		
Fluoranthene	4.78	3.418		mg/Kg		72	40 - 140		

4.78

81.2

4.78 2.908 61 40 - 140 mg/Kg 4.78 3.119 65 40 - 140 mg/Kg 4.78 1.823 40 - 140 mg/Kg 4.78 3.242 68 40 - 140 mg/Kg

mg/Kg

mg/Kg

3.515

51.97

38.2 28.71 mg/Kg 75 40 - 140 28.7 18.07 mg/Kg 40 - 140 LCS LCS

Surrogate	%Recovery	Qualifier	Limits		
1-Chlorooctadecane	72		40 - 140		
2-Bromonaphthalene	62		40 - 140		
2-Fluorobiphenyl	83		40 - 140		
o-Terphenvl	63		40 - 140		

Client Sample ID: Lab Control Sample Dup

74

64

40 - 140

40 - 140

Lab Sample ID: LCSD 480-155085/3-B **Matrix: Solid** 

Prep Type: Total/NA

Analysis Batch: 155521

Prep Batch: 155085

Trop Euton. 100021							00000		
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	4.91	2.617		mg/Kg		53	40 - 140	16	25

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-155085/3-B

**Matrix: Solid** 

Analysis Batch: 155521

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 155085** 

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	4.91	2.932		mg/Kg		60	40 - 140	8	25
Anthracene	4.91	3.657		mg/Kg		75	40 - 140	11	25
Benzo[a]anthracene	4.91	3.951		mg/Kg		81	40 - 140	13	25
Benzo[a]pyrene	4.91	3.838		mg/Kg		78	40 - 140	12	25
Benzo[b]fluoranthene	4.91	3.864		mg/Kg		79	40 - 140	14	25
Benzo[g,h,i]perylene	4.91	3.551		mg/Kg		72	40 - 140	15	25
Benzo[k]fluoranthene	4.91	3.881		mg/Kg		79	40 - 140	11	25
2-Methylnaphthalene	4.91	2.283		mg/Kg		47	40 - 140	15	25
Chrysene	4.91	3.966		mg/Kg		81	40 - 140	13	25
Dibenz(a,h)anthracene	4.91	3.759		mg/Kg		77	40 - 140	14	25
Fluoranthene	4.91	3.818		mg/Kg		78	40 - 140	11	25
Fluorene	4.91	3.197		mg/Kg		65	40 - 140	9	25
Indeno[1,2,3-cd]pyrene	4.91	3.604		mg/Kg		73	40 - 140	14	25
Naphthalene	4.91	2.098		mg/Kg		43	40 - 140	14	25
Phenanthrene	4.91	3.571		mg/Kg		73	40 - 140	10	25
Pyrene	4.91	3.906		mg/Kg		80	40 - 140	11	25
C11-C22 Aromatics (unadjusted)	83.4	58.81		mg/Kg		71	40 - 140	12	25
C19-C36 Aliphatics	39.3	33.46		mg/Kg		85	40 - 140	15	25
C9-C18 Aliphatics	29.4	19.28		mg/Kg		66	40 - 140	7	25

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	79		40 - 140
2-Bromonaphthalene	69		40 - 140
2-Fluorobiphenyl	91		40 - 140
o-Terphenyl	67		40 - 140

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-154525/1-A

**Matrix: Solid** 

Analysis Batch: 155180

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 154525

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.539		0.539	0.216	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Arsenic	<1.08		1.08	0.431	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Barium	<0.539		0.539	0.119	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Beryllium	<0.216		0.216	0.0302	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Cadmium	<0.216		0.216	0.0323	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Chromium	<0.539		0.539	0.216	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Nickel	<1.08		1.08	0.248	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Thallium	<1.08		1.08	0.323	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Vanadium	<0.539		0.539	0.119	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Zinc	0.4021	J	2.70	0.165	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Lead	<0.539		0.539	0.259	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Selenium	<0.539		0.539	0.431	mg/Kg		11/27/13 15:15	11/30/13 19:16	1
Antimony	<0.539		0.539	0.431	mg/Kg		11/27/13 15:15	11/30/13 19:16	1

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**Client Sample ID: Lab Control Sample** 

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 480-154525/3-A LCDSRM Client Sample ID: Lab Control Sample Dup Matrix: Solid Prep Type: Total/NA Analysis Batch: 155180 **Prep Batch: 154525** 

Analysis Batch. 100100							i icp i	Juton. I	04020
	Spike	LCDSRM	LCDSRM				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	40.5	39.56		mg/Kg		97.7	65.8 <sub>-</sub> 133.	3	20
Arsenic	99.8	101.5		mg/Kg		101.7	69.3 <sub>- 130.</sub> 5	1	20
Barium	311	295.2		mg/Kg		95.0	74.2 - 126. 1	0	20
Beryllium	72.4	74.38		mg/Kg		102.7	73.9 - 126. 1	2	20
Cadmium	182	177.2		mg/Kg		97.2	73.6 - 126. 4	3	20
Chromium	136	136.9		mg/Kg		100.5	70.4 - 130. 1	2	20
Nickel	153	162.6		mg/Kg		106.1	73.2 - 126. 1	6	20
Thallium	174	181.9		mg/Kg			69.0 - 131. 6	2	20
Vanadium	97.8	97.88		mg/Kg			65.2 <sub>-</sub> 135. 2	4	20
Zinc	161	157.9		mg/Kg			68.3 <sub>-</sub> 131. 7	2	20
Lead	115	117.9		mg/Kg			72.1 <sub>- 128.</sub> 7	1	20
Selenium	150	148.8		mg/Kg		99.0	67.3 - 132. 7	1	20
Antimony	88.4	93.82		mg/Kg		106.2	26.3 - 289.	0	20

Lab Sample ID: LCSSRM 480-154525/2-A

Matrix: Solid							Prep Type: Total/NA
Analysis Batch: 155180	Spike	LCSSRM	LCSSRM				Prep Batch: 154525 %Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Silver	40.4	40.83		mg/Kg		101.0	65.8 - 133. 7
Arsenic	99.7	100.9		mg/Kg		101.2	69.3 - 130. 5
Barium	310	295.0		mg/Kg		95.1	74.2 - 126. 1
Beryllium	72.3	75.75		mg/Kg		104.7	73.9 - 126. 1
Cadmium	182	182.3		mg/Kg		100.1	73.6 - 126. 4
Chromium	136	140.3		mg/Kg		103.1	70.4 - 130. 1
Nickel	153	172.3		mg/Kg		112.6	73.2 - 126. 1
Thallium	174	177.9		mg/Kg		102.2	69.0 - 131. 6
Vanadium	97.7	101.8		mg/Kg		104.2	65.2 - 135. 2
Zinc	161	160.6		mg/Kg		99.7	68.3 - 131. 7
Lead	115	118.9		mg/Kg		103.4	72.1 - 128. 7

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-50847-25MS

**Matrix: Solid** 

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-154525/2-A **Client Sample ID: Lab Control Sample** Matrix: Solid Prep Type: Total/NA **Prep Batch: 154525** Analysis Batch: 155180

	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Selenium	150	150.3		mg/Kg		100.1	67.3 - 132.	 _
							7	
Antimony	88.3	94.26		mg/Kg		106.8	26.3 - 289.	
							1	

Client Sample ID: WCSB-11 (6-7) MS

Prep Type: Total/NA

**Prep Batch: 154525** 

Analysis Batch: 155180	Sample	Sample	Spike	MS	MS				Prep Batch: 15452 %Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	4.67		43.3	38.76		mg/Kg	₩	79	75 - 125
Barium	24.1		43.3	68.84		mg/Kg	₩	103	75 <sub>-</sub> 125
Beryllium	0.368		43.3	35.17		mg/Kg	₽	80	75 <sub>-</sub> 125
Cadmium	0.249		43.3	34.56		mg/Kg	₩	79	75 <sub>-</sub> 125
Chromium	7.16		43.3	37.15	F	mg/Kg	₽	69	75 <sub>-</sub> 125
Nickel	8.01		43.3	49.92		mg/Kg	₩	97	75 - 125
Thallium	<1.09		43.3	41.65		mg/Kg	₩	96	75 <sub>-</sub> 125
Vanadium	5.68		43.3	41.00		mg/Kg	₩	82	75 <sub>-</sub> 125
Zinc	88.3	В	43.3	155.2	F	mg/Kg	₩	155	75 - 125
Lead	18.2		43.3	66.09		mg/Kg	₩	111	75 <sub>-</sub> 125
Selenium	<0.544		43.3	34.26		mg/Kg	₩	79	75 - 125
Antimony	<0.544		43.3	31.92	F	mg/Kg	₩	74	75 _ 125

Lab Sample ID: 480-50847-25MS Client Sample ID: WCSB-11 (6-7) MS Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 155818

**Prep Batch: 154525** MS MS Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Silver <2.72 10.8 9.343 ₩ 75 - 125 mg/Kg

Lab Sample ID: 480-50847-25MSD Client Sample ID: WCSB-11 (6-7) MSD

**Matrix: Solid** 

Analysis Batch: 155180									Prep I	Batch: 1	54525
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	4.67		45.0	42.87		mg/Kg	₩	85	75 - 125	10	35
Barium	24.1		45.0	74.75		mg/Kg	₩	113	75 - 125	8	35
Beryllium	0.368		45.0	39.62		mg/Kg	₩	87	75 <sub>-</sub> 125	12	35
Cadmium	0.249		45.0	38.65		mg/Kg	₩.	85	75 - 125	11	35
Chromium	7.16		45.0	42.87		mg/Kg	₩	79	75 - 125	14	35
Nickel	8.01		45.0	53.93		mg/Kg	₩	102	75 - 125	8	35
Thallium	<1.09		45.0	43.42		mg/Kg	₩	97	75 - 125	4	35
Vanadium	5.68		45.0	46.25		mg/Kg	₩	90	75 <sub>-</sub> 125	12	35
Zinc	88.3	В	45.0	151.0	F	mg/Kg	₩	140	75 - 125	3	35
Lead	18.2		45.0	67.08		mg/Kg	₩	109	75 - 125	1	35
Selenium	<0.544		45.0	38.17		mg/Kg	₩	85	75 <sub>-</sub> 125	11	35
Antimony	< 0.544		45.0	35.10		mg/Kg	≎	78	75 <sub>-</sub> 125	10	35

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Prep Type: Total/NA

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-50847-25MSD Client Sample ID: WCSB-11 (6-7) MSD **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 155818

Prep Batch: 154525

Sample Sample Spike MSD MSD Added Result Qualifier Qualifier D Limits RPD Limit Analyte Result Unit %Rec 11.2 92 Silver <2.72 10.33 mg/Kg 75 - 125 10 35

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 480-154829/1-A Client Sample ID: Method Blank

**Matrix: Solid** 

Analysis Batch: 155027

Prep Type: Total/NA **Prep Batch: 154829** 

мв мв Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac <0.0993 0.0993 0.00804 mg/Kg 11/29/13 08:40 11/29/13 15:50 Mercury

Lab Sample ID: LCDSRM 480-154829/3-A LCDSRM Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 155027 **Prep Batch: 154829** LCDSRM LCDSRM RPD Spike

Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 54.2 Mercury 3.77 2.043 mg/Kg 50.9 - 149. 1

Lab Sample ID: LCSSRM 480-154829/2-A Client Sample ID: Lab Control Sample

LCSSRM LCSSRM

**Matrix: Solid** 

Analysis Batch: 155027

Prep Type: Total/NA **Prep Batch: 154829** 

Added Analyte Result Qualifier %Rec Limits Unit D 50.9 - 149. Mercury 3.77 1.963 mg/Kg 52.1

Spike

Lab Sample ID: 480-50847-25MS Client Sample ID: WCSB-11 (6-7) MS

**Matrix: Solid** 

Analysis Batch: 155027

Prep Type: Total/NA Prep Batch: 154829

75 - 125

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Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Analyte Unit %Rec Limits 0.0158 J 0.330 0.2151 F Ö 60 75 - 125 Mercury mg/Kg

Lab Sample ID: 480-50847-25MSD Client Sample ID: WCSB-11 (6-7) MSD

0.320

0.0158 J

**Matrix: Solid** 

Analyte

Mercury

Prep Type: Total/NA **Analysis Batch: 155027** Prep Batch: 154829 Sample Sample Spike MSD MSD %Rec. **RPD** Added Result Qualifier Result Qualifier Unit D %Rec Limits **RPD** Limit

0.2001 F

mg/Kg

# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

## **GC/MS VOA**

## Analysis Batch: 154424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-3	WCSB-4 (1-2)	Total/NA	Solid	8260C	154449
480-50847-15	WCSB-16 (6-7)	Total/NA	Solid	8260C	154449
480-50847-16	WCSB-15 (0.5-1.5)	Total/NA	Solid	8260C	154449
480-50847-19	WCSB-14 (7-8)	Total/NA	Solid	8260C	154449
480-50847-22	WCSB-12 (2.5-3)	Total/NA	Solid	8260C	154449
480-50847-27	TB-11222013 (2)	Total/NA	Solid	8260C	154449
LCS 480-154424/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 480-154424/5	Lab Control Sample Dup	Total/NA	Solid	8260C	
MB 480-154424/6	Method Blank	Total/NA	Solid	8260C	

## **Prep Batch: 154449**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-3	WCSB-4 (1-2)	Total/NA	Solid	5035	
480-50847-15	WCSB-16 (6-7)	Total/NA	Solid	5035	
480-50847-16	WCSB-15 (0.5-1.5)	Total/NA	Solid	5035	
480-50847-19	WCSB-14 (7-8)	Total/NA	Solid	5035	
480-50847-22	WCSB-12 (2.5-3)	Total/NA	Solid	5035	
480-50847-27	TB-11222013 (2)	Total/NA	Solid	5035	

## Analysis Batch: 154695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-3 - DL	WCSB-4 (1-2)	Total/NA	Solid	8260C	154701
LCS 480-154701/1-A	Lab Control Sample	Total/NA	Solid	8260C	154701
LCSD 480-154701/2-A	Lab Control Sample Dup	Total/NA	Solid	8260C	154701
MB 480-154701/3-A	Method Blank	Total/NA	Solid	8260C	154701

## **Prep Batch: 154701**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-3 - DL	WCSB-4 (1-2)	Total/NA	Solid	5035	<u> </u>
LCS 480-154701/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 480-154701/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 480-154701/3-A	Method Blank	Total/NA	Solid	5035	

## **GC Semi VOA**

## **Prep Batch: 111692**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-1	WCSB-20 (14-15)	Total/NA	Solid	3540C	
480-50847-5	WCSB-22 (2.5-3)	Total/NA	Solid	3540C	
480-50847-7	WCSB-21 (2.5-3)	Total/NA	Solid	3540C	
480-50847-9	WCSB-19 (2.5-3)	Total/NA	Solid	3540C	
480-50847-11	WCSB-18 (2.5-3)	Total/NA	Solid	3540C	
480-50847-11 MS	WCSB-18 (2.5-3)	Total/NA	Solid	3540C	
480-50847-11 MSD	WCSB-18 (2.5-3)	Total/NA	Solid	3540C	
480-50847-13	WCSB-17 (2.5-3)	Total/NA	Solid	3540C	
LCS 240-111692/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-111692/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-111692/23-A	Method Blank	Total/NA	Solid	3540C	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

GC Semi VOA (Continued)

## **Prep Batch: 111693**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-17	WCSB-15 (2.5-3)	Total/NA	Solid	3540C	
480-50847-20	WCSB-13 (2.5-3)	Total/NA	Solid	3540C	
480-50847-22	WCSB-12 (2.5-3)	Total/NA	Solid	3540C	
480-50847-24	WCSB-912 (2.5-3)	Total/NA	Solid	3540C	
480-50847-26	WCSB-7 (7-8)	Total/NA	Solid	3540C	
LCS 240-111693/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-111693/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-111693/23-A	Method Blank	Total/NA	Solid	3540C	

### **Analysis Batch: 112117**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-5	WCSB-22 (2.5-3)	Total/NA	Solid	8082	111692
480-50847-7	WCSB-21 (2.5-3)	Total/NA	Solid	8082	111692
480-50847-9	WCSB-19 (2.5-3)	Total/NA	Solid	8082	111692
480-50847-11	WCSB-18 (2.5-3)	Total/NA	Solid	8082	111692
480-50847-11 MS	WCSB-18 (2.5-3)	Total/NA	Solid	8082	111692
480-50847-11 MSD	WCSB-18 (2.5-3)	Total/NA	Solid	8082	111692
480-50847-13	WCSB-17 (2.5-3)	Total/NA	Solid	8082	111692
LCS 240-111692/24-A	Lab Control Sample	Total/NA	Solid	8082	111692
LCSD 240-111692/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	111692

## Analysis Batch: 112327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-17	WCSB-15 (2.5-3)	Total/NA	Solid	8082	111693
480-50847-20	WCSB-13 (2.5-3)	Total/NA	Solid	8082	111693
480-50847-22	WCSB-12 (2.5-3)	Total/NA	Solid	8082	111693
480-50847-24	WCSB-912 (2.5-3)	Total/NA	Solid	8082	111693
480-50847-26	WCSB-7 (7-8)	Total/NA	Solid	8082	111693
LCS 240-111693/24-A	Lab Control Sample	Total/NA	Solid	8082	111693
LCSD 240-111693/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	111693
MB 240-111693/23-A	Method Blank	Total/NA	Solid	8082	111693

## Analysis Batch: 112330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-1	WCSB-20 (14-15)	Total/NA	Solid	8082	111692
MB 240-111692/23-A	Method Blank	Total/NA	Solid	8082	111692

## **Prep Batch: 154450**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-1	WCSB-20 (14-15)	Total/NA	Solid	3546	
480-50847-5	WCSB-22 (2.5-3)	Total/NA	Solid	3546	
480-50847-7	WCSB-21 (2.5-3)	Total/NA	Solid	3546	
480-50847-13	WCSB-17 (2.5-3)	Total/NA	Solid	3546	
480-50847-19	WCSB-14 (7-8)	Total/NA	Solid	3546	
LCS 480-154450/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 480-154450/3-B	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 480-154450/1-B	Method Blank	Total/NA	Solid	3546	

### Fraction Batch: 154639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-1	WCSB-20 (14-15)	Total/NA	Solid	MA EPH Frac	154450

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

GC Semi VOA (Continued)

## Fraction Batch: 154639 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-5	WCSB-22 (2.5-3)	Total/NA	Solid	MA EPH Frac	154450
480-50847-7	WCSB-21 (2.5-3)	Total/NA	Solid	MA EPH Frac	154450
480-50847-13	WCSB-17 (2.5-3)	Total/NA	Solid	MA EPH Frac	154450
480-50847-19	WCSB-14 (7-8)	Total/NA	Solid	MA EPH Frac	154450
LCS 480-154450/2-B	Lab Control Sample	Total/NA	Solid	MA EPH Frac	154450
LCSD 480-154450/3-B	Lab Control Sample Dup	Total/NA	Solid	MA EPH Frac	154450
MB 480-154450/1-B	Method Blank	Total/NA	Solid	MA EPH Frac	154450

## Analysis Batch: 154895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-1	WCSB-20 (14-15)	Total/NA	Solid	MA-EPH	154639
480-50847-5	WCSB-22 (2.5-3)	Total/NA	Solid	MA-EPH	154639
480-50847-7	WCSB-21 (2.5-3)	Total/NA	Solid	MA-EPH	154639
480-50847-13	WCSB-17 (2.5-3)	Total/NA	Solid	MA-EPH	154639
480-50847-19	WCSB-14 (7-8)	Total/NA	Solid	MA-EPH	154639
LCS 480-154450/2-B	Lab Control Sample	Total/NA	Solid	MA-EPH	154639
LCSD 480-154450/3-B	Lab Control Sample Dup	Total/NA	Solid	MA-EPH	154639
MB 480-154450/1-B	Method Blank	Total/NA	Solid	MA-EPH	154639

### **Prep Batch: 155085**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-9	WCSB-19 (2.5-3)	Total/NA	Solid	3546	<u> </u>
LCS 480-155085/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 480-155085/3-B	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 480-155085/1-B	Method Blank	Total/NA	Solid	3546	

## Fraction Batch: 155270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-9	WCSB-19 (2.5-3)	Total/NA	Solid	MA EPH Frac	155085
LCS 480-155085/2-B	Lab Control Sample	Total/NA	Solid	MA EPH Frac	155085
LCSD 480-155085/3-B	Lab Control Sample Dup	Total/NA	Solid	MA EPH Frac	155085
MB 480-155085/1-B	Method Blank	Total/NA	Solid	MA EPH Frac	155085

### Analysis Batch: 155390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-1	WCSB-20 (14-15)	Total/NA	Solid	MA-EPH	
480-50847-5	WCSB-22 (2.5-3)	Total/NA	Solid	MA-EPH	
480-50847-7	WCSB-21 (2.5-3)	Total/NA	Solid	MA-EPH	
480-50847-9	WCSB-19 (2.5-3)	Total/NA	Solid	MA-EPH	
480-50847-13	WCSB-17 (2.5-3)	Total/NA	Solid	MA-EPH	
480-50847-19	WCSB-14 (7-8)	Total/NA	Solid	MA-EPH	

## Analysis Batch: 155521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-9	WCSB-19 (2.5-3)	Total/NA	Solid	MA-EPH	155270
LCS 480-155085/2-B	Lab Control Sample	Total/NA	Solid	MA-EPH	155270
LCSD 480-155085/3-B	Lab Control Sample Dup	Total/NA	Solid	MA-EPH	155270
MB 480-155085/1-B	Method Blank	Total/NA	Solid	MA-EPH	155270

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals** 

**Prep Batch: 154525** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-4	WCSB-4 (7-8)	Total/NA	Solid	3050B	
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	3050B	
480-50847-25MS	WCSB-11 (6-7) MS	Total/NA	Solid	3050B	
480-50847-25MSD	WCSB-11 (6-7) MSD	Total/NA	Solid	3050B	
480-50847-26	WCSB-7 (7-8)	Total/NA	Solid	3050B	
LCDSRM 480-154525/3-A LCD\$	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-154525/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-154525/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 154829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-4	WCSB-4 (7-8)	Total/NA	Solid	7471A	<del>-</del>
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	7471A	
480-50847-25MS	WCSB-11 (6-7) MS	Total/NA	Solid	7471A	
480-50847-25MSD	WCSB-11 (6-7) MSD	Total/NA	Solid	7471A	
480-50847-26	WCSB-7 (7-8)	Total/NA	Solid	7471A	
LCDSRM 480-154829/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	
LCSSRM 480-154829/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 480-154829/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 155027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-4	WCSB-4 (7-8)	Total/NA	Solid	7471A	154829
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	7471A	154829
480-50847-25MS	WCSB-11 (6-7) MS	Total/NA	Solid	7471A	154829
480-50847-25MSD	WCSB-11 (6-7) MSD	Total/NA	Solid	7471A	154829
480-50847-26	WCSB-7 (7-8)	Total/NA	Solid	7471A	154829
LCDSRM 480-154829/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	154829
LCSSRM 480-154829/2-A	Lab Control Sample	Total/NA	Solid	7471A	154829
MB 480-154829/1-A	Method Blank	Total/NA	Solid	7471A	154829

Analysis Batch: 155180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-4	WCSB-4 (7-8)	Total/NA	Solid	6010	154525
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	6010	154525
480-50847-25MS	WCSB-11 (6-7) MS	Total/NA	Solid	6010	154525
480-50847-25MSD	WCSB-11 (6-7) MSD	Total/NA	Solid	6010	154525
480-50847-26	WCSB-7 (7-8)	Total/NA	Solid	6010	154525
LCDSRM 480-154525/3-A LCD	Lab Control Sample Dup	Total/NA	Solid	6010	154525
LCSSRM 480-154525/2-A	Lab Control Sample	Total/NA	Solid	6010	154525
MB 480-154525/1-A	Method Blank	Total/NA	Solid	6010	154525

Analysis Batch: 155818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	6010	154525
480-50847-25MS	WCSB-11 (6-7) MS	Total/NA	Solid	6010	154525
480-50847-25MSD	WCSB-11 (6-7) MSD	Total/NA	Solid	6010	154525

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

## **General Chemistry**

## Analysis Batch: 111911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-1	WCSB-20 (14-15)	Total/NA	Solid	Moisture	
480-50847-5	WCSB-22 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-7	WCSB-21 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-9	WCSB-19 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-11	WCSB-18 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-13	WCSB-17 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-17	WCSB-15 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-17 DU	WCSB-15 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-20	WCSB-13 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-22	WCSB-12 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-24	WCSB-912 (2.5-3)	Total/NA	Solid	Moisture	
480-50847-26	WCSB-7 (7-8)	Total/NA	Solid	Moisture	

## Analysis Batch: 154545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-3	WCSB-4 (1-2)	Total/NA	Solid	Moisture	
480-50847-4	WCSB-4 (7-8)	Total/NA	Solid	Moisture	
480-50847-15	WCSB-16 (6-7)	Total/NA	Solid	Moisture	
480-50847-16	WCSB-15 (0.5-1.5)	Total/NA	Solid	Moisture	
480-50847-19	WCSB-14 (7-8)	Total/NA	Solid	Moisture	
480-50847-25MS	WCSB-11 (6-7) MS	Total/NA	Solid	Moisture	
480-50847-25MSD	WCSB-11 (6-7) MSD	Total/NA	Solid	Moisture	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 11/26/13 02:00

Lab Sample ID: 480-50847-1

**Matrix: Solid** 

Client Sample ID: WCSB-20 (14-15) Date Collected: 11/22/13 12:15

Percent Solids: 85.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		500	112330	12/05/13 12:42	LSH	TAL CAN
Total/NA	Fraction	MA EPH Frac			154639	11/27/13 08:07	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	154895	11/29/13 17:51	DGB	TAL BUF
Total/NA	Prep	3546			154450	11/26/13 10:37	CAM	TAL BUF
Total/NA	Analysis	MA-EPH		1	155390	12/03/13 12:12	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-4 (1-2)

Lab Sample ID: 480-50847-3

**Matrix: Solid** 

Date Collected: 11/22/13 13:05 Date Received: 11/26/13 02:00

Percent Solids: 90.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 16:47	CDC	TAL BUF
Total/NA	Prep	5035	DL		154701	11/27/13 11:06	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	1	154695	11/27/13 19:46	RAL	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

Client Sample ID: WCSB-4 (7-8)

Lab Sample ID: 480-50847-4

**Matrix: Solid** 

Date Collected: 11/22/13 13:10 Date Received: 11/26/13 02:00

Percent Solids: 80.0

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			154829	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 16:06	JRK	TAL BUF
Total/NA	Prep	3050B			154525	11/27/13 15:15	NMD2	TAL BUF
Total/NA	Analysis	6010		1	155180	11/30/13 19:58	MTM2	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

Client Sample ID: WCSB-22 (2.5-3)

Lab Sample ID: 480-50847-5

Date Collected: 11/22/13 13:30 Date Received: 11/26/13 02:00

**Matrix: Solid** Percent Solids: 90.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		100	112117	12/03/13 19:27	LSH	TAL CAN
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Prep	3546			154450	11/26/13 10:37	CAM	TAL BUF
Total/NA	Fraction	MA EPH Frac			154639	11/27/13 08:07	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	154895	11/29/13 18:21	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	155390	12/03/13 12:12	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-50847-7

Matrix: Solid

Percent Solids: 95.0

CI	ient	Sample	e ID:	WCSB-2	1 (2.5-3)
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Date Collected: 11/22/13 13:55 Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C	<del></del> -		111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		1	112117	12/03/13 19:43	LSH	TAL CAN
Total/NA	Fraction	MA EPH Frac			154639	11/27/13 08:07	KEB	TAL BUF
Total/NA	Prep	3546			154450	11/26/13 10:37	CAM	TAL BUF
Total/NA	Analysis	MA-EPH		1	154895	11/29/13 18:50	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	155390	12/03/13 12:12	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-19 (2.5-3)

Lab Sample ID: 480-50847-9

Date Collected: 11/22/13 14:10 Date Received: 11/26/13 02:00 Matrix: Solid Percent Solids: 89.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		1	112117	12/03/13 19:59	LSH	TAL CAN
Total/NA	Analysis	MA-EPH		1	155390	12/03/13 12:12	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			155270	12/03/13 06:25	KEB	TAL BUF
Total/NA	Prep	3546			155085	12/02/13 09:26	CAM	TAL BUF
Total/NA	Analysis	MA-EPH		1	155521	12/04/13 10:54	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-18 (2.5-3)

Lab Sample ID: 480-50847-11

Date Collected: 11/22/13 14:20
Date Received: 11/26/13 02:00
Percent Solids: 92.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Analysis	8082		500	112117	12/03/13 20:46	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-17 (2.5-3)

Lab Sample ID: 480-50847-13

Date Collected: 11/22/13 14:35
Date Received: 11/26/13 02:00
Matrix: Solid
Percent Solids: 92.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1000	112117	12/03/13 20:15	LSH	TAL CAN
Total/NA	Prep	3540C			111692	11/29/13 07:58	MPM	TAL CAN
Total/NA	Fraction	MA EPH Frac			154639	11/27/13 08:07	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	154895	11/29/13 20:18	DGB	TAL BUF
Total/NA	Prep	3546			154450	11/26/13 10:37	CAM	TAL BUF
Total/NA	Analysis	MA-EPH		1	155390	12/03/13 12:12	DGB	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSB-17 (2.5-3) Lab Sample ID: 480-50847-13

Date Collected: 11/22/13 14:35 Matrix: Solid

Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-16 (6-7) Lab Sample ID: 480-50847-15

Date Collected: 11/22/13 14:55 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 68.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 17:13	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

**Client Sample ID: WCSB-15 (0.5-1.5)** Lab Sample ID: 480-50847-16

Date Collected: 11/22/13 15:15 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 91.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 17:38	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

Client Sample ID: WCSB-15 (2.5-3) Lab Sample ID: 480-50847-17

Date Collected: 11/22/13 15:17 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 88.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111693	11/29/13 08:08	MPM	TAL CAN
Total/NA	Analysis	8082		10	112327	12/05/13 04:16	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Lab Sample ID: 480-50847-19 Client Sample ID: WCSB-14 (7-8)

Date Collected: 11/22/13 15:30 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 95.3

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 18:04	CDC	TAL BUF
Total/NA	Analysis	MA-EPH		1	154895	11/29/13 20:48	DGB	TAL BUF
Total/NA	Prep	3546			154450	11/26/13 10:37	CAM	TAL BUF
Total/NA	Fraction	MA EPH Frac			154639	11/27/13 08:07	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	155390	12/03/13 12:12	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	154545	11/26/13 19:24	GTG	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-50847-20

Matrix: Solid

Percent Solids: 85.0

Client Sample ID: WCSB-13 (2.5-3) Date Collected: 11/22/13 15:40

Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111693	11/29/13 08:08	MPM	TAL CAN
Total/NA	Analysis	8082		5	112327	12/05/13 04:30	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-12 (2.5-3) Lab Sample ID: 480-50847-22

Date Collected: 11/22/13 16:10

**Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 87.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 18:29	CDC	TAL BUF
Total/NA	Prep	3540C			111693	11/29/13 08:08	MPM	TAL CAN
Total/NA	Analysis	8082		10000	112327	12/05/13 04:45	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-912 (2.5-3) Lab Sample ID: 480-50847-24

Date Collected: 11/22/13 16:10

**Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 86.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111693	11/29/13 08:08	MPM	TAL CAN
Total/NA	Analysis	8082		10000	112327	12/05/13 05:00	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: WCSB-11 (6-7) Lab Sample ID: 480-50847-25

Date Collected: 11/22/13 16:25 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 96.5

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			154829	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 16:08	JRK	TAL BUF
Total/NA	Prep	3050B			154525	11/27/13 15:15	NMD2	TAL BUF
Total/NA	Analysis	6010		1	155180	11/30/13 20:00	MTM2	TAL BUF
Total/NA	Prep	3050B			154525	11/27/13 15:15	NMD2	TAL BUF
Total/NA	Analysis	6010		5	155818	12/04/13 14:36	MTM2	TAL BUF

Lab Sample ID: 480-50847-26 Client Sample ID: WCSB-7 (7-8)

Date Collected: 11/22/13 16:40 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 88.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			111693	11/29/13 08:08	MPM	TAL CAN

TestAmerica Buffalo

Page 62 of 71

### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Lab Sample ID: 480-50847-26

Matrix: Solid

Percent Solids: 88.8

Client Sample ID: WCSB-7 (7-	8)

Date Collected: 11/22/13 16:40 Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1	112327	12/05/13 05:15	LSH	TAL CAN
Total/NA	Prep	7471A			154829	11/29/13 08:40	JRK	TAL BUF
Total/NA	Analysis	7471A		1	155027	11/29/13 16:15	JRK	TAL BUF
Total/NA	Prep	3050B			154525	11/27/13 15:15	NMD2	TAL BUF
Total/NA	Analysis	6010		1	155180	11/30/13 20:16	MTM2	TAL BUF
Total/NA	Analysis	Moisture		1	111911	12/02/13 14:55	BLW	TAL CAN

Client Sample ID: TB-11222013 (2) Lab Sample ID: 480-50847-27

Date Collected: 11/22/13 12:00 Matrix: Solid

Date Received: 11/26/13 02:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			154449	11/26/13 10:30	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	154424	11/26/13 18:55	CDC	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
lowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13 *
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13 *
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13 *
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13 *
Wisconsin	State Program	5	998310390	08-31-14

### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13 *
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14 *
Kentucky (UST)	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *

 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

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# **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

## Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14 *
West Virginia DEP	State Program	3	210	12-31-13 *
Wisconsin	State Program	5	999518190	08-31-14

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<sup>\*</sup> Expired certification is currently pending renewal and is considered valid.

# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL CAN
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7471A	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
Moisture	Percent Moisture	EPA	TAL CAN

#### **Protocol References:**

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-50847-1	WCSB-20 (14-15)	Solid	11/22/13 12:15	11/26/13 02:00
480-50847-3	WCSB-4 (1-2)	Solid	11/22/13 13:05	11/26/13 02:00
480-50847-4	WCSB-4 (7-8)	Solid	11/22/13 13:10	11/26/13 02:00
480-50847-5	WCSB-22 (2.5-3)	Solid	11/22/13 13:30	11/26/13 02:00
480-50847-7	WCSB-21 (2.5-3)	Solid	11/22/13 13:55	11/26/13 02:00
480-50847-9	WCSB-19 (2.5-3)	Solid	11/22/13 14:10	11/26/13 02:00
480-50847-11	WCSB-18 (2.5-3)	Solid	11/22/13 14:20	11/26/13 02:00
480-50847-13	WCSB-17 (2.5-3)	Solid	11/22/13 14:35	11/26/13 02:00
480-50847-15	WCSB-16 (6-7)	Solid	11/22/13 14:55	11/26/13 02:00
480-50847-16	WCSB-15 (0.5-1.5)	Solid	11/22/13 15:15	11/26/13 02:00
480-50847-17	WCSB-15 (2.5-3)	Solid	11/22/13 15:17	11/26/13 02:00
480-50847-19	WCSB-14 (7-8)	Solid	11/22/13 15:30	11/26/13 02:00
480-50847-20	WCSB-13 (2.5-3)	Solid	11/22/13 15:40	11/26/13 02:00
480-50847-22	WCSB-12 (2.5-3)	Solid	11/22/13 16:10	11/26/13 02:00
480-50847-24	WCSB-912 (2.5-3)	Solid	11/22/13 16:10	11/26/13 02:00
480-50847-25	WCSB-11 (6-7)	Solid	11/22/13 16:25	11/26/13 02:00
480-50847-26	WCSB-7 (7-8)	Solid	11/22/13 16:40	11/26/13 02:00
480-50847-27	TB-11222013 (2)	Solid	11/22/13 12:00	11/26/13 02:00

## **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-50847-1

Login Number: 50847 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

orontori Priorito, Noboli N		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

**TestAmerica** 

Drinking Water? Yes□ Nox

THE LEADER IN ENVIRONMENTAL TESTING

Woodard & Curra	n		Project	25-12	ocl	You Area	ler Gode)	/Fax	Numbe	er	1 31.6 7.54.7	ee ii		0.0		II /Z	2/13 ber	>		Chain of a	-62	792	- 10 m
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X5B-4 (7-8)			1310			X	1						X	7						1436			
XSB-22 (25-3)			1330			X		2	$\perp$			X			X						AL THE		
WCSB-22 (45-5)	)		1335			X	177	7			44	×	0.00	-	X		1+		1	> HO	(D)	thalys	xs
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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

<u>TestAmerica</u>

Drinking Water? Yes ☐ No ☒

THE LEADER IN ENVIRONMENTAL TESTING

Client  Woodard & Curvan  Address		Project J Telepho	an	od	You (Area C	lec Code)/I	Fax No	umbei	r		1	, the				Date 11 Lab N		1/13		LA		255		
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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

<u>TestAmerica</u>

Drinking Water? Yes ☐ No 🕱

THE LEADER IN ENVIRONMENTAL TESTING

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-50847-2 Client Project/Site: Quincy Inervale

### For:

Woodard & Curran Inc 40 Shattuck Road Suite 110 Andover, Massachusetts 01810

Attn: Mr. Jarrod Yoder

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Authorized for release by: 12/16/2013 11:02:03 AM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

## **Qualifiers**

### **GC Semi VOA**

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
В	Compound was found in the blank and sample.

## **Glossary**

RL

RPD

TEF

TEQ

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points

Abb	The second of th
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio

### **Case Narrative**

Client: Woodard & Curran Inc

Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

Job ID: 480-50847-2

Laboratory: TestAmerica Buffalo

Narrative

#### Receipt

The samples were received on 11/26/2013 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.4° C, 2.7° C and 3.3° C.

The following samples were preserved by the client via freezing on 11/22/2013 at 20:00: TB-11222013 (2) (480-50847-27), WCSB-12 (2.5-3) (480-50847-22), WCSB-14 (7-8) (480-50847-19), WCSB-15 (0.5-1.5) (480-50847-16), WCSB-16 (6-7) (480-50847-15), WCSB-20 (16-17) (480-50847-2). This is within the 48 hour timeframe required by the method.

Samples taken off hold per client request.

#### GC Semi VOA

Method 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WCSB-11 (6-7) (480-50847-25), WCSB-18 (7-8) (480-50847-12), WCSB-22 (4.5-5) (480-50847-6), WCSB-12 (5.5-6) (480-50847-23), WCSB-20 (16-17) (480-50847-2). Lot # S65830

Method 8082: The following sample was diluted due to the nature of the sample matrix: WCSB-20 (16-17) (480-50847-2). Elevated reporting limits (RLs) are provided.

Method MA-EPH: The method blank for batch 156219 contained analyltes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

### **General Chemistry**

No analytical or quality issues were noted.

### Organic Prep

No analytical or quality issues were noted.

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	MassDEP Analytical Protocol Certification Form												
Labo	ratory Name:	TestAmer	ica Buffalo	Project #:	480-5084	17-2							
Proje	ect Location:	Quincy	Inervale	RTN:									
This f	orm provide	s certifications for	the data set for	the following Labora	atory Sample ID Number(s	):							
480-5	0847-2[2,6,8,	10,12,14,18,21,23,2											
Matric	es: L	Groundwater/Surfa		Soil/Sediment	Drinking Water	Other:							
			-	eck all that apply be	•								
8260		7470/7471 Hg	Mass DEP VPH	8081 Pesticides	7196 Hex Cr	Mass DEP APH							
CAM	II A	CAM III B	CAM IV A L Mass DEP EPH	S151 Herbicides	CAM VI B 8330 Explosives	CAM IX A TO-15 VOC							
CAM		CAM III C	CAM IV B	_	CAM VIII A	CAM IX B							
6010 CAM	Metals III A	6020 Metals CAM III D	8082 PCB CAM V A 🔯	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B								
	Affirmative	Responses to Que	stions A throug	h F are required for '	Presumptive Certainty" st	atus							
A		served (including ter			d on the Chain-of-Custody, d prepared/analyzed within	X Yes No							
В	Were the and protocol(s) for		nd all associated	QC requirements spe	cified in the selected CAM	X Yes No							
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?												
D				orting requirements sp s for the Acquisition a	pecified in CAM VII A, and Reporting of Analytical	X Yes No							
Е	modification(	s)? (Refer to the inc	dividual method(s	method conducted witl ) for a list of significan ete analyte list reporte	t modifications).	X Yes No							
F	evaluated in	a laboratory narrativ	/e (including all "N	No" responses to Que	0 /	X Yes No							
	Respons	ses to Questions C	6, H and I below	are required for "Pre	sumptive Certainty" statu	s							
G	protocol(s)?		<u> </u>	orting limits specified in		X Yes No1							
	<u>Data User I</u>				not necessarily meet the dat 0. 1056 (2)(k) and WCS-07-350								
Н	Were <b>all</b> QC	performance stand	ards specified in	the CAM protocol(s) a	chieved?	X Yes No <sup>1</sup>							
I	Were results	reported for the co	mplete analyte lis	t specified in the selec	cted CAM protocol(s) ?	X Yes No <sup>1</sup>							
1 All ne	gative responses m	ust be addressed in an attac	hed laboratory narrative.										
obtair	I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.												
Signa	ture:	Ru Ma	Den er	Position	Project Ma	nager							
	d Name:	Becky	Mason	Date:	12/16/13 1	0:58							

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50847-2

Lab Sample ID: 480-50847-2

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Client Sample ID: \	WCSB-20 (16-17)
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	0.321	J	0.357	0.184	mg/Kg	5	#	8082	Total/NA
Anthracene	0.226	J	1.05	0.200	mg/Kg	1	₽	MA-EPH	Total/NA
2-Methylnaphthalene	0.271	J	1.05	0.206	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	0.331	J	1.05	0.185	mg/Kg	1	₽	MA-EPH	Total/NA
Naphthalene	0.691	J	1.05	0.177	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.652	JB	1.05	0.211	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	18.8	В	10.5	4.21	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	19.2		10.5	4.21	mg/Kg	1	₩	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	16.6		10.8	10.8	mg/Kg	1	₩	MA-EPH	Total/NA

Client Sample ID: WCSB-22 (4.5-5)

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method Prep Type
PCB-1260	0.126	0.0417	0.0215 mg/Kg	1 7 8	8082 Total/NA

Client Sample ID: WCSB-18 (7-8)

I ah Samal	~ ID:	480-50847-12	
Lab Sallibi	e ID.	400-20047-12	

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
PCB-1260	0.0467	0.0401	0.0207 mg/Kg	1 🕏	8082	Total/NA

Client Sample ID: WCSB-12 (5.5-6)

## Lab Sample ID: 480-50847-23

Analyte	Result Qualifier	RL M	DL Unit	Dil Fac	D Method	Prep Type
PCB-1242	0.601	0.222 0.08	73 mg/Kg	5	<sup>©</sup> 8082	Total/NA
PCB-1254	0.968	0.222 0.1	14 mg/Kg	5	⇔ 8082	Total/NA

Client Sample ID: WCSB-11 (6-7)

## Lab Sample ID: 480-50847-25

No Detections.

This Detection Summary does not include radiochemical test results.

# **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

Client Sample ID: WCSB-20 (16-17)

Date Collected: 11/22/13 12:20 Date Received: 11/26/13 02:00 Lab Sample ID: 480-50847-2

Matrix: Solid
Percent Solids: 46.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.357		0.357	0.227	mg/Kg	\$	12/09/13 09:03	12/12/13 07:20	5
PCB-1221	< 0.357		0.357	0.173	mg/Kg	₽	12/09/13 09:03	12/12/13 07:20	5
PCB-1232	< 0.357		0.357	0.151	mg/Kg	₽	12/09/13 09:03	12/12/13 07:20	5
PCB-1242	<0.357		0.357	0.141	mg/Kg	₩	12/09/13 09:03	12/12/13 07:20	5
PCB-1248	< 0.357		0.357	0.184	mg/Kg	₽	12/09/13 09:03	12/12/13 07:20	5
PCB-1254	< 0.357		0.357	0.184	mg/Kg	₩	12/09/13 09:03	12/12/13 07:20	5
PCB-1260	0.321	J	0.357	0.184	mg/Kg	₽	12/09/13 09:03	12/12/13 07:20	5
PCB-1262	< 0.357		0.357	0.292	mg/Kg	₩	12/09/13 09:03	12/12/13 07:20	5
PCB-1268	<0.357		0.357	0.151	mg/Kg	₽	12/09/13 09:03	12/12/13 07:20	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	162	X	30 - 150				12/09/13 09:03	12/12/13 07:20	5
Tetrachloro-m-xylene	98		30 - 150				12/09/13 09:03	12/12/13 07:20	5
DCB Decachlorobiphenyl	85		30 - 150				12/09/13 09:03	12/12/13 07:20	5
DCB Decachlorobiphenyl	82		30 - 150				12/09/13 09:03	12/12/13 07:20	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<1.05		1.05	0.171	mg/Kg	<del></del>	12/06/13 16:48	12/12/13 13:35	1
Acenaphthylene	<1.05		1.05	0.190	mg/Kg	₩	12/06/13 16:48	12/12/13 13:35	1
Anthracene	0.226	J	1.05	0.200	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Benzo[a]anthracene	<1.05		1.05	0.160	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Benzo[a]pyrene	<1.05		1.05	0.152	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Benzo[b]fluoranthene	<1.05		1.05	0.150	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Benzo[g,h,i]perylene	<1.05		1.05	0.179	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Benzo[k]fluoranthene	<1.05		1.05	0.154	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
2-Methylnaphthalene	0.271	J	1.05	0.206	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Chrysene	<1.05		1.05	0.187	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Dibenz(a,h)anthracene	<1.05		1.05	0.147	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Fluoranthene	0.331	J	1.05	0.185	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Fluorene	<1.05		1.05	0.211	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Indeno[1,2,3-cd]pyrene	<1.05		1.05	0.154	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Naphthalene	0.691	J	1.05	0.177	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
Phenanthrene	0.652	JB	1.05	0.211	mg/Kg	\$	12/06/13 16:48	12/12/13 13:35	1
Pyrene	<1.05		1.05	0.192	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
C11-C22 Aromatics (unadjusted)	18.8	В	10.5	4.21	mg/Kg	₩	12/06/13 16:48	12/12/13 13:35	1
C19-C36 Aliphatics	19.2		10.5	4.21	mg/Kg	₽	12/06/13 16:48	12/12/13 13:35	1
C9-C18 Aliphatics	<10.5		10.5	4.21	mg/Kg	₩	12/06/13 16:48	12/12/13 13:35	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	16.6		10.8	10.8	mg/Kg	<del></del>		12/13/13 09:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	49		40 - 140	12/06/13 16:4	8 12/12/13 13:35	1
2-Bromonaphthalene	84		40 - 140	12/06/13 16:4	8 12/12/13 13:35	1
2-Fluorobiphenyl	97		40 - 140	12/06/13 16:4	8 12/12/13 13:35	1
o-Terphenyl	50		40 - 140	12/06/13 16:4	8 12/12/13 13:35	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

Client Sample ID: WCSB-22 (4.5-5) Lab Sample ID: 480-50847-6

Date Collected: 11/22/13 13:35 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 79.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0417		0.0417	0.0266	mg/Kg	<del>-</del>	12/09/13 09:03	12/11/13 16:46	1
PCB-1221	<0.0417		0.0417	0.0202	mg/Kg	₽	12/09/13 09:03	12/11/13 16:46	1
PCB-1232	<0.0417		0.0417	0.0177	mg/Kg	₽	12/09/13 09:03	12/11/13 16:46	1
PCB-1242	<0.0417		0.0417	0.0164	mg/Kg	₽	12/09/13 09:03	12/11/13 16:46	1
PCB-1248	<0.0417		0.0417	0.0215	mg/Kg	₽	12/09/13 09:03	12/11/13 16:46	1
PCB-1254	<0.0417		0.0417	0.0215	mg/Kg	₽	12/09/13 09:03	12/11/13 16:46	1
PCB-1260	0.126		0.0417	0.0215	mg/Kg	\$	12/09/13 09:03	12/11/13 16:46	1
PCB-1262	<0.0417		0.0417	0.0342	mg/Kg	₽	12/09/13 09:03	12/11/13 16:46	1
PCB-1268	<0.0417		0.0417	0.0177	mg/Kg	₩	12/09/13 09:03	12/11/13 16:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		30 - 150				12/09/13 09:03	12/11/13 16:46	1
Tetrachloro-m-xylene	87		30 - 150				12/09/13 09:03	12/11/13 16:46	1
DCB Decachlorobiphenyl	53		30 - 150				12/09/13 09:03	12/11/13 16:46	1
DCB Decachlorobiphenyl	124		30 - 150				12/09/13 09:03	12/11/13 16:46	1

Client Sample ID: WCSB-18 (7-8) Lab Sample ID: 480-50847-12

Date Collected: 11/22/13 14:25 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0401		0.0401	0.0255	mg/Kg	<del>\</del>	12/09/13 09:03	12/11/13 17:01	1
PCB-1221	<0.0401		0.0401	0.0195	mg/Kg	₩	12/09/13 09:03	12/11/13 17:01	1
PCB-1232	<0.0401		0.0401	0.0170	mg/Kg	₩	12/09/13 09:03	12/11/13 17:01	1
PCB-1242	<0.0401		0.0401	0.0158	mg/Kg	₽	12/09/13 09:03	12/11/13 17:01	1
PCB-1248	<0.0401		0.0401	0.0207	mg/Kg	₩	12/09/13 09:03	12/11/13 17:01	1
PCB-1254	<0.0401		0.0401	0.0207	mg/Kg	₽	12/09/13 09:03	12/11/13 17:01	1
PCB-1260	0.0467		0.0401	0.0207	mg/Kg	\$	12/09/13 09:03	12/11/13 17:01	1
PCB-1262	<0.0401		0.0401	0.0328	mg/Kg	₩	12/09/13 09:03	12/11/13 17:01	1
PCB-1268	<0.0401		0.0401	0.0170	mg/Kg	₩	12/09/13 09:03	12/11/13 17:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tatraablara m vulana			20 150				12/00/12 00:02	10/11/12 17:01	

Surroyate	70Necovery	Qualifier	Lillits	riepaieu	Allalyzeu	DII Fac
Tetrachloro-m-xylene	77		30 - 150	12/09/13 09:0	73 12/11/13 17:01	1
Tetrachloro-m-xylene	70		30 - 150	12/09/13 09:0	03 12/11/13 17:01	1
DCB Decachlorobiphenyl	48		30 - 150	12/09/13 09:0	03 12/11/13 17:01	1
DCB Decachlorobiphenyl	63		30 - 150	12/09/13 09:0	03 12/11/13 17:01	1

Lab Sample ID: 480-50847-23 Client Sample ID: WCSB-12 (5.5-6)

Date Collected: 11/22/13 16:12 Date Received: 11/26/13 02:00 Percent Solids: 74.5

Method: 8082 - Polychlorin	ated Biphenyls (GC/	ECD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.222		0.222	0.141	mg/Kg	<del>\</del>	12/09/13 09:03	12/12/13 07:35	5
PCB-1221	<0.222		0.222	0.107	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5
PCB-1232	<0.222		0.222	0.0940	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5
PCB-1242	0.601		0.222	0.0873	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5
PCB-1248	<0.222		0.222	0.114	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5
PCB-1254	0.968		0.222	0.114	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5

TestAmerica Buffalo

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**Matrix: Solid** 

# **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

Client Sample ID: WCSB-12 (5.5-6)

Lab Sample ID: 480-50847-23 Date Collected: 11/22/13 16:12 Matrix: Solid

Date Received: 11/26/13 02:00 Percent Solids: 74.5

Method: 8082 - Polychlorina	ted Biphenyls (GC	ECD) (Cont	tinued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	<0.222		0.222	0.114	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5
PCB-1262	<0.222		0.222	0.181	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5
PCB-1268	<0.222		0.222	0.0940	mg/Kg	₽	12/09/13 09:03	12/12/13 07:35	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		30 - 150				12/09/13 09:03	12/12/13 07:35	5
Tetrachloro-m-xylene	90		30 - 150				12/09/13 09:03	12/12/13 07:35	5
DCB Decachlorobiphenyl	120		30 - 150				12/09/13 09:03	12/12/13 07:35	5
DCB Decachlorobiphenvl	128		30 - 150				12/09/13 09:03	12/12/13 07:35	5

Client Sample ID: WCSB-11 (6-7) Lab Sample ID: 480-50847-25

Date Collected: 11/22/13 16:25 Matrix: Solid Date Received: 11/26/13 02:00 Percent Solids: 96.3

Method: 8082 - Polychlorinat Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0341		0.0341			— <del>-</del>	12/09/13 09:03	12/11/13 17:31	1
PCB-1221	<0.0341		0.0341	0.0165	0 0		12/09/13 09:03	12/11/13 17:31	1
PCB-1232	<0.0341		0.0341	0.0145		₩	12/09/13 09:03	12/11/13 17:31	1
PCB-1242	<0.0341		0.0341	0.0134		 ф	12/09/13 09:03	12/11/13 17:31	1
PCB-1248	<0.0341		0.0341	0.0176	mg/Kg	₩	12/09/13 09:03	12/11/13 17:31	1
PCB-1254	<0.0341		0.0341	0.0176	mg/Kg	₽	12/09/13 09:03	12/11/13 17:31	1
PCB-1260	<0.0341		0.0341	0.0176	mg/Kg		12/09/13 09:03	12/11/13 17:31	1
PCB-1262	< 0.0341		0.0341	0.0279	mg/Kg	₩	12/09/13 09:03	12/11/13 17:31	1
PCB-1268	<0.0341		0.0341	0.0145	mg/Kg	₽	12/09/13 09:03	12/11/13 17:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	46		30 - 150				12/09/13 09:03	12/11/13 17:31	1
Tetrachloro-m-xylene	50		30 - 150				12/09/13 09:03	12/11/13 17:31	1
DCB Decachlorobiphenyl	46		30 _ 150				12/09/13 09:03	12/11/13 17:31	1
DCB Decachlorobiphenyl	47		30 - 150				12/09/13 09:03	12/11/13 17:31	1

# **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid Prep Type: Total/NA

				Percent Su	rrogate Rec
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
480-50847-2	WCSB-20 (16-17)	162 X	98	85	82
480-50847-6	WCSB-22 (4.5-5)	57	87	53	124
480-50847-12	WCSB-18 (7-8)	77	70	48	63
480-50847-23	WCSB-12 (5.5-6)	91	90	120	128
480-50847-25	WCSB-11 (6-7)	46	50	46	47
LCS 240-112814/24-A	Lab Control Sample	80	85	61	74
LCSD 240-112814/25-A	Lab Control Sample Dup	79	107	69	74
MB 240-112814/23-A	Method Blank	81	91	65	75

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Sui	rogate Rec
		1COD2	2BN1	FBP1	OTPH1
Lab Sample ID	Client Sample ID	(40-140)	(40-140)	(40-140)	(40-140)
480-50847-2	WCSB-20 (16-17)	49	84	97	50
LCS 480-156219/2-B	Lab Control Sample	66	86	99	60
LCSD 480-156219/17-B	Lab Control Sample Dup	65	83	96	61
MB 480-156219/1-B	Method Blank	63	85	99	61

Surrogate Legend

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 240-112814/23-A

Matrix: Solid

Analysis Batch: 113249

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 112814** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		12/09/13 09:03	12/11/13 17:45	
PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		12/09/13 09:03	12/11/13 17:45	•
PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		12/09/13 09:03	12/11/13 17:45	•
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		12/09/13 09:03	12/11/13 17:45	
PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		12/09/13 09:03	12/11/13 17:45	•
PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		12/09/13 09:03	12/11/13 17:45	•
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		12/09/13 09:03	12/11/13 17:45	
PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		12/09/13 09:03	12/11/13 17:45	•
PCB-1268	< 0.0330		0.0330	0.0140	mg/Kg		12/09/13 09:03	12/11/13 17:45	•

мв мв

Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81	30 - 150		12/09/13 09:03	12/11/13 17:45	1
Tetrachloro-m-xylene	91	30 - 150	1	12/09/13 09:03	12/11/13 17:45	1
DCB Decachlorobiphenyl	65	30 - 150	1	12/09/13 09:03	12/11/13 17:45	1
DCB Decachlorobiphenyl	75	30 - 150	1	12/09/13 09:03	12/11/13 17:45	1

Client Sample ID: Lab Control Sample

Matrix: Solid

Matrix: Solid

Analysis Batch: 113249

Analysis Batch: 113249

Lab Sample ID: LCS 240-112814/24-A

Lab Sample ID: LCSD 240-112814/25-A

Prep Type: Total/NA

**Prep Batch: 112814** 

	Spike	LUS	LUS				70Kec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
PCB-1016	0.333	0.2801		mg/Kg		84	40 - 140		_
PCB-1260	0.333	0.2815		mg/Kg		84	40 - 140		

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	80		30 - 150
Tetrachloro-m-xylene	85		30 - 150
DCB Decachlorobiphenyl	61		30 - 150
DCB Decachlorobiphenyl	74		30 - 150

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA **Prep Batch: 112814** 

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
PCB-1016	 0.333	0.2689		mg/Kg		81	40 - 140	4	30	
PCB-1260	0.333	0.2783		mg/Kg		83	40 - 140	1	30	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	79		30 - 150
Tetrachloro-m-xylene	107		30 - 150
DCB Decachlorobiphenyl	69		30 - 150
DCB Decachlorobiphenyl	74		30 - 150

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-156219/1-B

Matrix: Solid

Analysis Batch: 156916

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 156219** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.492		0.492	0.0796	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Acenaphthylene	<0.492		0.492	0.0885	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Anthracene	<0.492		0.492	0.0934	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Benzo[a]anthracene	<0.492		0.492	0.0747	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Benzo[a]pyrene	<0.492		0.492	0.0708	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Benzo[b]fluoranthene	<0.492		0.492	0.0698	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Benzo[g,h,i]perylene	0.1329	J	0.492	0.0836	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Benzo[k]fluoranthene	<0.492		0.492	0.0718	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
2-Methylnaphthalene	<0.492		0.492	0.0964	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Chrysene	<0.492		0.492	0.0875	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Dibenz(a,h)anthracene	<0.492		0.492	0.0688	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Fluoranthene	< 0.492		0.492	0.0865	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Fluorene	<0.492		0.492	0.0983	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Indeno[1,2,3-cd]pyrene	0.07908	J	0.492	0.0718	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Naphthalene	<0.492		0.492	0.0826	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Phenanthrene	0.1557	J	0.492	0.0983	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
Pyrene	<0.492		0.492	0.0895	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
C11-C22 Aromatics (unadjusted)	3.729	J	4.92	1.97	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
C19-C36 Aliphatics	<4.92		4.92	1.97	mg/Kg		12/06/13 15:02	12/11/13 14:28	1
C9-C18 Aliphatics	<4.92		4.92	1.97	mg/Kg		12/06/13 15:02	12/11/13 14:28	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepa	ıred	Analyzed	Dil Fac
1-Chlorooctadecane	63		40 - 140	12/06/13	3 15:02	12/11/13 14:28	1
2-Bromonaphthalene	85		40 - 140	12/06/13	3 15:02	12/11/13 14:28	1
2-Fluorobiphenyl	99		40 - 140	12/06/13	3 15:02	12/11/13 14:28	1
o-Terphenvl	61		40 - 140	12/06/13	3 15:02	12/11/13 14:28	1

Lab Sample ID: LCS 480-156219/2-B

**Matrix: Solid** 

Analysis Batch: 156916

Client Sample ID: Lab Control Sample Prep Type: Total/NA **Prep Batch: 156219** 

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	4.88	2.743		mg/Kg		56	40 - 140
Acenaphthylene	4.88	2.791		mg/Kg		57	40 - 140
Anthracene	4.88	3.315		mg/Kg		68	40 - 140
Benzo[a]anthracene	4.88	3.372		mg/Kg		69	40 - 140
Benzo[a]pyrene	4.88	3.260		mg/Kg		67	40 - 140
Benzo[b]fluoranthene	4.88	3.228		mg/Kg		66	40 - 140
Benzo[g,h,i]perylene	4.88	2.683		mg/Kg		55	40 - 140
Benzo[k]fluoranthene	4.88	3.338		mg/Kg		68	40 - 140
2-Methylnaphthalene	4.88	2.609		mg/Kg		53	40 - 140
Chrysene	4.88	3.380		mg/Kg		69	40 - 140
Dibenz(a,h)anthracene	4.88	3.027		mg/Kg		62	40 - 140
Fluoranthene	4.88	3.307		mg/Kg		68	40 - 140
Fluorene	4.88	3.016		mg/Kg		62	40 - 140
Indeno[1,2,3-cd]pyrene	4.88	2.839		mg/Kg		58	40 - 140
Naphthalene	4.88	2.374		mg/Kg		49	40 - 140
Phenanthrene	4.88	3.286		mg/Kg		67	40 - 140

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-156219/2-B

Lab Sample ID: LCSD 480-156219/17-B

**Matrix: Solid** 

Analysis Batch: 156916

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 156219** 

Spike	LCS	LCS				%Rec.	
Added	Result	Qualifier	Unit	D	%Rec	Limits	
4.88	3.383		mg/Kg		69	40 - 140	
82.9	54.12		mg/Kg		65	40 - 140	
39.0	26.18		mg/Kg		67	40 - 140	
29.3	14.98		mg/Kg		51	40 - 140	
	Added 4.88 82.9 39.0	Added         Result           4.88         3.383           82.9         54.12           39.0         26.18	Added         Result         Qualifier           4.88         3.383           82.9         54.12           39.0         26.18	Added         Result         Qualifier         Unit           4.88         3.383         mg/Kg           82.9         54.12         mg/Kg           39.0         26.18         mg/Kg	Added         Result         Qualifier         Unit         D           4.88         3.383         mg/Kg           82.9         54.12         mg/Kg           39.0         26.18         mg/Kg	Added         Result         Qualifier         Unit         D         %Rec           4.88         3.383         mg/Kg         69           82.9         54.12         mg/Kg         65           39.0         26.18         mg/Kg         67	Added         Result         Qualifier         Unit         D         %Rec         Limits           4.88         3.383         mg/Kg         69         40 - 140           82.9         54.12         mg/Kg         65         40 - 140           39.0         26.18         mg/Kg         67         40 - 140

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	66		40 - 140
2-Bromonaphthalene	86		40 - 140
2-Fluorobiphenyl	99		40 - 140
o-Terphenyl	60		40 - 140

LCS LCS

Client Sample ID: Lab Control Sample Dup

**Prep Batch: 156219** 

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 156916

-	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	4.73	2.781		mg/Kg		59	40 - 140	1	25
Acenaphthylene	4.73	2.798		mg/Kg		59	40 - 140	0	25
Anthracene	4.73	3.340		mg/Kg		71	40 - 140	1	25
Benzo[a]anthracene	4.73	3.352		mg/Kg		71	40 - 140	1	25
Benzo[a]pyrene	4.73	3.276		mg/Kg		69	40 - 140	0	25
Benzo[b]fluoranthene	4.73	3.228		mg/Kg		68	40 - 140	0	25
Benzo[g,h,i]perylene	4.73	3.002		mg/Kg		63	40 - 140	11	25
Benzo[k]fluoranthene	4.73	3.321		mg/Kg		70	40 - 140	1	25
2-Methylnaphthalene	4.73	2.676		mg/Kg		57	40 - 140	3	25
Chrysene	4.73	3.353		mg/Kg		71	40 - 140	1	25
Dibenz(a,h)anthracene	4.73	3.182		mg/Kg		67	40 - 140	5	25
Fluoranthene	4.73	3.293		mg/Kg		70	40 - 140	0	25
Fluorene	4.73	3.009		mg/Kg		64	40 - 140	0	25
Indeno[1,2,3-cd]pyrene	4.73	3.048		mg/Kg		64	40 - 140	7	25
Naphthalene	4.73	2.398		mg/Kg		51	40 - 140	1	25
Phenanthrene	4.73	3.312		mg/Kg		70	40 - 140	1	25
Pyrene	4.73	3.374		mg/Kg		71	40 - 140	0	25
C11-C22 Aromatics (unadjusted)	80.5	55.04		mg/Kg		68	40 - 140	2	25
C19-C36 Aliphatics	37.9	25.83		mg/Kg		68	40 - 140	1	25
C9-C18 Aliphatics	28.4	15.21		mg/Kg		54	40 - 140	2	25

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	65		40 - 140
2-Bromonaphthalene	83		40 - 140
2-Fluorobiphenyl	96		40 - 140
o-Terphenyl	61		40 - 140

TestAmerica Buffalo

# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

## GC Semi VOA

Prei	o Ba	tch: 1	112814
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-2	WCSB-20 (16-17)	Total/NA	Solid	3540C	
480-50847-6	WCSB-22 (4.5-5)	Total/NA	Solid	3540C	
480-50847-12	WCSB-18 (7-8)	Total/NA	Solid	3540C	
480-50847-23	WCSB-12 (5.5-6)	Total/NA	Solid	3540C	
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	3540C	
LCS 240-112814/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-112814/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-112814/23-A	Method Blank	Total/NA	Solid	3540C	

## Analysis Batch: 113249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-6	WCSB-22 (4.5-5)	Total/NA	Solid	8082	112814
480-50847-12	WCSB-18 (7-8)	Total/NA	Solid	8082	112814
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	8082	112814
LCS 240-112814/24-A	Lab Control Sample	Total/NA	Solid	8082	112814
LCSD 240-112814/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	112814
MB 240-112814/23-A	Method Blank	Total/NA	Solid	8082	112814

## Analysis Batch: 113290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-2	WCSB-20 (16-17)	Total/NA	Solid	8082	112814
480-50847-23	WCSB-12 (5.5-6)	Total/NA	Solid	8082	112814

## **Prep Batch: 156219**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-2	WCSB-20 (16-17)	Total/NA	Solid	3546	
LCS 480-156219/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 480-156219/17-B	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 480-156219/1-B	Method Blank	Total/NA	Solid	3546	

### Fraction Batch: 156814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-2	WCSB-20 (16-17)	Total/NA	Solid	MA EPH Frac	156219
LCS 480-156219/2-B	Lab Control Sample	Total/NA	Solid	MA EPH Frac	156219
LCSD 480-156219/17-B	Lab Control Sample Dup	Total/NA	Solid	MA EPH Frac	156219
MB 480-156219/1-B	Method Blank	Total/NA	Solid	MA EPH Frac	156219

## Analysis Batch: 156916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-156219/2-B	Lab Control Sample	Total/NA	Solid	MA-EPH	156814
LCSD 480-156219/17-B	Lab Control Sample Dup	Total/NA	Solid	MA-EPH	156814
MB 480-156219/1-B	Method Blank	Total/NA	Solid	MA-EPH	156814

## Analysis Batch: 157162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-2	WCSB-20 (16-17)	Total/NA	Solid	MA-EPH	

## Analysis Batch: 157185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-2	WCSB-20 (16-17)	Total/NA	Solid	MA-EPH	156814

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## **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

#### **General Chemistry**

#### Analysis Batch: 113345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-50847-2	WCSB-20 (16-17)	Total/NA	Solid	Moisture	
480-50847-6	WCSB-22 (4.5-5)	Total/NA	Solid	Moisture	
480-50847-12	WCSB-18 (7-8)	Total/NA	Solid	Moisture	
480-50847-23	WCSB-12 (5.5-6)	Total/NA	Solid	Moisture	
480-50847-25	WCSB-11 (6-7)	Total/NA	Solid	Moisture	

3

4

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13

TestAmerica Job ID: 480-50847-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 11/22/13 12:20 Date Received: 11/26/13 02:00

Client Sample ID: WCSB-20 (16-17)

Lab Sample ID: 480-50847-2

Matrix: Solid	
Percent Solids: 46.3	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			112814	12/09/13 09:03	CSC	TAL CAN
Total/NA	Analysis	8082		5	113290	12/12/13 07:20	LSH	TAL CAN
Total/NA	Analysis	MA-EPH		1	157162	12/13/13 09:40	DGB	TAL BUF
Total/NA	Prep	3546			156219	12/06/13 16:48	JRL	TAL BUF
Total/NA	Fraction	MA EPH Frac			156814	12/10/13 14:41	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	157185	12/12/13 13:35	DGB	TAL BUF
Total/NA	Analysis	Moisture		1	113345	12/12/13 15:25	WAL	TAL CAN

Client Sample ID: WCSB-22 (4.5-5) Lab Sample ID: 480-50847-6

Date Collected: 11/22/13 13:35 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 79.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			112814	12/09/13 09:03	CSC	TAL CAN
Total/NA	Analysis	8082		1	113249	12/11/13 16:46	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	113345	12/12/13 15:25	WAL	TAL CAN

Lab Sample ID: 480-50847-12 Client Sample ID: WCSB-18 (7-8)

Date Collected: 11/22/13 14:25 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 81.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1	113249	12/11/13 17:01	LSH	TAL CAN
Total/NA	Prep	3540C			112814	12/09/13 09:03	CSC	TAL CAN
Total/NA	Analysis	Moisture		1	113345	12/12/13 17:31	WAL	TAL CAN

Lab Sample ID: 480-50847-23 Client Sample ID: WCSB-12 (5.5-6)

Date Collected: 11/22/13 16:12 Date Received: 11/26/13 02:00 Percent Solids: 74.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			112814	12/09/13 09:03	CSC	TAL CAN
Total/NA	Analysis	8082		5	113290	12/12/13 07:35	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	113345	12/12/13 17:31	WAL	TAL CAN

Client Sample ID: WCSB-11 (6-7) Lab Sample ID: 480-50847-25

Date Collected: 11/22/13 16:25 **Matrix: Solid** Date Received: 11/26/13 02:00 Percent Solids: 96.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			112814	12/09/13 09:03	CSC	TAL CAN
Total/NA	Analysis	8082		1	113249	12/11/13 17:31	LSH	TAL CAN

TestAmerica Buffalo

Page 16 of 25

**Matrix: Solid** 

#### Lab Chronicle

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-50847-2

Lab Sample ID: 480-50847-25

Matrix: Solid

Date Collected: 11/22/13 16:25 Date Received: 11/26/13 02:00

Client Sample ID: WCSB-11 (6-7)

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis Moisture 113345 12/12/13 17:31 WAL TAL CAN

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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TestAmerica Job ID: 480-50847-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13 *
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13 *
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13 *
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13 *
Wisconsin	State Program	5	998310390	08-31-14

#### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13 *
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14 *
Kentucky (UST)	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	10-31-15
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *

 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

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#### **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

#### Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14 *
West Virginia DEP	State Program	3	210	12-31-13 *
Wisconsin	State Program	5	999518190	08-31-14

<sup>\*</sup> Expired certification is currently pending renewal and is considered valid.

#### **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL CAN
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
Moisture	Percent Moisture	EPA	TAL CAN

#### Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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#### **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-50847-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-50847-2	WCSB-20 (16-17)	Solid	11/22/13 12:20	11/26/13 02:00
480-50847-6	WCSB-22 (4.5-5)	Solid	11/22/13 13:35	11/26/13 02:00
480-50847-12	WCSB-18 (7-8)	Solid	11/22/13 14:25	11/26/13 02:00
480-50847-23	WCSB-12 (5.5-6)	Solid	11/22/13 16:12	11/26/13 02:00
480-50847-25	WCSB-11 (6-7)	Solid	11/22/13 16:25	11/26/13 02:00

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#### **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-50847-2

Login Number: 50847 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

**TestAmerica** 

Drinking Water? Yes ☐ No

THE LEADER IN ENVIRONMENTAL TESTING

Client Woodard & Curra	n		20	Manag WNOX	LYO		Augusta San				1 1 1				_	1/22	/13		9-78 TO STORY	Custody 255		
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WCSB-21 (G-7)			1400			X	2					X		>					> HC	D.	Am	lyses
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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

<u>TestAmerica</u>

Drinking Water? Yes□ No⊠

THE LEADER IN ENVIRONMENTAL TESTING

Woodard & Curran		Project	Manage Zevoc		land.										Date 11	122	1/12		CI	nain of Cust		93
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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

<u>TestAmerica</u>

Drinking	Water?	Yes 🗆	Noj
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THE LEADER IN ENVIRONMENTAL TESTING

	Client		Project															Date			/		C	hain oi				
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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-45074-1 Client Project/Site: Quincy Inervale

Revision: 1

For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

hasen

Authorized for release by: 9/21/2013 3:47:10 PM

Becky Mason, Project Manager II becky.mason@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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#### **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45074-1

#### **Qualifiers**

#### GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
E	Result exceeded calibration range.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not
	applicable.

#### Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
T .	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC O	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

TestAmerica Buffalo

#### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45074-1

#### Job ID: 480-45074-1

#### Laboratory: TestAmerica Buffalo

#### Narrative

Revised Report: Client wanted units for PCB changed to mg/Kg. This replaces final report from 912/13.

#### Receipt

The samples were received on 9/5/2013 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2° C.

#### GC Semi VOA

Due to high concentration of target compounds all samples were run at dilutions.

Per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits after moisture correction do not achieve the CAM reporting limits specified in this CAM protocol; however they do achieve method 1 S1 standards.

Due to dilutions required, per question G on the MassDEP Analytical Protocol Certification Form, the CAM reporting limits specified in this CAM protocol could not be achieved for some or all samples/analytes.

No analytical or quality issues were noted.

#### **General Chemistry**

No analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45074-1

Client Sample ID: WCSS-02						La	b Sample	ID: 480-45074-1
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
PCB-1260	23.5		3.65	1.88	mg/Kg	100	□ 8082	Total/NA
Client Sample ID: WCSS-03						La	b Sample	ID: 480-45074-2
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
PCB-1260	1.53		0.439	0.226	mg/Kg	10	□ 8082	Total/NA
Client Sample ID: WCSS-04						La	b Sample	ID: 480-45074-3
– Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
PCB-1260	18.9		3.68	1.89	mg/Kg	100		Total/NA
Client Sample ID: WCSS-05						La	b Sample	ID: 480-45074-4
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
PCB-1260	3.17		1.78	0.918	mg/Kg	50	≅ 8082	Total/NA
Client Sample ID: WCSS-06						La	b Sample	ID: 480-45074-
_ Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
PCB-1260	2.18		0.358	0.184	mg/Kg	10	≅ 8082	Total/NA
Client Sample ID: WCSS-07						La	b Sample	ID: 480-45074-6
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
PCB-1260	1.93		0.361	0.186	mg/Kg	10	₹ 8082	Total/NA
Client Sample ID: WCSS-08						La	b Sample	ID: 480-45074-7
Analyte	Result	Qualifier	RL	MDL	Unit		D Method	Prep Type
PCB-1260	1.57		0.393	0.203	mg/Kg	10	□ 8082	Total/NA
Client Sample ID: WCSS-09						La	b Sample	ID: 480-45074-8
Analyte	Result	Qualifier	RL	MDL	Unit		D Method	Prep Type
PCB-1260	21.0		4.10	2.11	mg/Kg	100	≅ 8082	Total/NA
Client Sample ID: WCSS-10						La	b Sample	ID: 480-45074-9
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
PCB-1260	92.2		38.5	19.8	mg/Kg	1000	≅ 8082	Total/NA
Client Sample ID: WCSS-902						Lak	Sample II	): 480-45074-10
Analyte	Result	Qualifier	RL	MDL	Unit		D Method	Prep Type
PCB-1260	25.3		3.97	2.05	mg/Kg	100	<del>≅</del> 8082	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

TestAmerica Job ID: 480-45074-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-02 Lab Sample ID: 480-45074-1 Date Collected: 09/03/13 15:05 **Matrix: Solid** 

Date Received: 09/05/13 09:30 Percent Solids: 91.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.65		3.65	2.32	mg/Kg	₩	09/05/13 11:42	09/09/13 15:43	100
PCB-1221	<3.65		3.65	1.77	mg/Kg	₽	09/05/13 11:42	09/09/13 15:43	100
PCB-1232	<3.65		3.65	1.55	mg/Kg	₩	09/05/13 11:42	09/09/13 15:43	100
PCB-1242	<3.65		3.65	1.44	mg/Kg	₩	09/05/13 11:42	09/09/13 15:43	100
PCB-1248	<3.65		3.65	1.88	mg/Kg	₽	09/05/13 11:42	09/09/13 15:43	100
PCB-1254	<3.65		3.65	1.88	mg/Kg	₽	09/05/13 11:42	09/09/13 15:43	100
PCB-1260	23.5		3.65	1.88	mg/Kg	₽	09/05/13 11:42	09/09/13 15:43	100
PCB-1262	<3.65		3.65	2.99	mg/Kg	₽	09/05/13 11:42	09/09/13 15:43	100
PCB-1268	<3.65		3.65	1.55	mg/Kg	₽	09/05/13 11:42	09/09/13 15:43	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/05/13 11:42	09/09/13 15:43	100
Tetrachloro-m-xylene	0	X	30 - 150				09/05/13 11:42	09/09/13 15:43	100
DCB Decachlorobiphenyl	5664	X	30 - 150				09/05/13 11:42	09/09/13 15:43	100
DCB Decachlorobiphenyl	2089	X	30 - 150				09/05/13 11:42	09/09/13 15:43	100

Lab Sample ID: 480-45074-2 **Client Sample ID: WCSS-03** Date Collected: 09/03/13 15:10 **Matrix: Solid** 

Date Received: 09/05/13 09:30 Percent Solids: 75.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.439		0.439	0.279	mg/Kg	₽	09/05/13 11:42	09/09/13 16:44	10
PCB-1221	< 0.439		0.439	0.213	mg/Kg	₽	09/05/13 11:42	09/09/13 16:44	10
PCB-1232	<0.439		0.439	0.186	mg/Kg	₩	09/05/13 11:42	09/09/13 16:44	10
PCB-1242	<0.439		0.439	0.173	mg/Kg	*	09/05/13 11:42	09/09/13 16:44	10
PCB-1248	<0.439		0.439	0.226	mg/Kg	₩	09/05/13 11:42	09/09/13 16:44	10
PCB-1254	<0.439		0.439	0.226	mg/Kg	₩	09/05/13 11:42	09/09/13 16:44	10
PCB-1260	1.53		0.439	0.226	mg/Kg	₩	09/05/13 11:42	09/09/13 16:44	10
PCB-1262	<0.439		0.439	0.359	mg/Kg	₽	09/05/13 11:42	09/09/13 16:44	10
PCB-1268	<0.439		0.439	0.186	mg/Kg	₩	09/05/13 11:42	09/09/13 16:44	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	156	X	30 - 150				09/05/13 11:42	09/09/13 16:44	10
Tetrachloro-m-xylene	108		30 - 150				09/05/13 11:42	09/09/13 16:44	10
DCB Decachlorobiphenyl	427	X	30 - 150				09/05/13 11:42	09/09/13 16:44	10
DCB Decachlorobiphenyl	388	X	30 - 150				09/05/13 11:42	09/09/13 16:44	10

Client Sample ID: WCSS-04 Lab Sample ID: 480-45074-3

Date Collected: 09/03/13 15:15 Date Received: 09/05/13 09:30 Percent Solids: 90.4

Method: 8082 - Polychlor	inated Biphenyls (GC/	ECD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.68		3.68	2.34	mg/Kg	\$	09/05/13 11:42	09/09/13 16:59	100
PCB-1221	<3.68		3.68	1.78	mg/Kg	₽	09/05/13 11:42	09/09/13 16:59	100
PCB-1232	<3.68		3.68	1.56	mg/Kg	₽	09/05/13 11:42	09/09/13 16:59	100
PCB-1242	<3.68		3.68	1.45	mg/Kg	₩.	09/05/13 11:42	09/09/13 16:59	100
PCB-1248	<3.68		3.68	1.89	mg/Kg	₩	09/05/13 11:42	09/09/13 16:59	100
PCB-1254	<3.68		3.68	1.89	mg/Kg	₩	09/05/13 11:42	09/09/13 16:59	100

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**Matrix: Solid** 

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45074-1

**Client Sample ID: WCSS-04** 

Lab Sample ID: 480-45074-3 Date Collected: 09/03/13 15:15 Matrix: Solid

Percent Solids: 90.4

Date Received: 09/05/13 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	18.9		3.68	1.89	mg/Kg	<del>-</del>	09/05/13 11:42	09/09/13 16:59	100
PCB-1262	<3.68		3.68	3.01	mg/Kg	₽	09/05/13 11:42	09/09/13 16:59	100
PCB-1268	<3.68		3.68	1.56	mg/Kg	₽	09/05/13 11:42	09/09/13 16:59	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/05/13 11:42	09/09/13 16:59	100
Tetrachloro-m-xylene	0	X	30 - 150				09/05/13 11:42	09/09/13 16:59	100
DCB Decachlorobiphenyl	2510	Χ	30 - 150				09/05/13 11:42	09/09/13 16:59	100
DCB Decachlorobiphenvl	2619	Y	30 - 150				09/05/13 11:42	09/09/13 16:59	100

**Client Sample ID: WCSS-05** Lab Sample ID: 480-45074-4

Date Collected: 09/03/13 15:20 **Matrix: Solid** Date Received: 09/05/13 09:30 Percent Solids: 92.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.78		1.78	1.13	mg/Kg	₽	09/05/13 11:42	09/09/13 17:30	50
PCB-1221	<1.78		1.78	0.864	mg/Kg	₽	09/05/13 11:42	09/09/13 17:30	50
PCB-1232	<1.78		1.78	0.756	mg/Kg	₩	09/05/13 11:42	09/09/13 17:30	50
PCB-1242	<1.78		1.78	0.702	mg/Kg	₽	09/05/13 11:42	09/09/13 17:30	50
PCB-1248	<1.78		1.78	0.918	mg/Kg	₩	09/05/13 11:42	09/09/13 17:30	50
PCB-1254	<1.78		1.78	0.918	mg/Kg	₩	09/05/13 11:42	09/09/13 17:30	50
PCB-1260	3.17		1.78	0.918	mg/Kg	*	09/05/13 11:42	09/09/13 17:30	50
PCB-1262	<1.78		1.78	1.46	mg/Kg	₩	09/05/13 11:42	09/09/13 17:30	50
PCB-1268	<1.78		1.78	0.756	mg/Kg	₩	09/05/13 11:42	09/09/13 17:30	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/05/13 11:42	09/09/13 17:30	50
Tetrachloro-m-xylene	0	X	30 - 150				09/05/13 11:42	09/09/13 17:30	50
DCB Decachlorobiphenyl	748	X	30 - 150				09/05/13 11:42	09/09/13 17:30	50
DCB Decachlorobiphenyl	520	X	30 - 150				09/05/13 11:42	09/09/13 17:30	50

**Client Sample ID: WCSS-06** Lab Sample ID: 480-45074-5

Date Collected: 09/03/13 15:25 **Matrix: Solid** Date Received: 09/05/13 09:30 Percent Solids: 92.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.358		0.358	0.228	mg/Kg	<u></u>	09/05/13 11:42	09/09/13 17:45	10
PCB-1221	<0.358		0.358	0.174	mg/Kg	₩	09/05/13 11:42	09/09/13 17:45	10
PCB-1232	<0.358		0.358	0.152	mg/Kg	₩	09/05/13 11:42	09/09/13 17:45	10
PCB-1242	<0.358		0.358	0.141	mg/Kg	₽	09/05/13 11:42	09/09/13 17:45	10
PCB-1248	<0.358		0.358	0.184	mg/Kg	₩	09/05/13 11:42	09/09/13 17:45	10
PCB-1254	<0.358		0.358	0.184	mg/Kg	₩	09/05/13 11:42	09/09/13 17:45	10
PCB-1260	2.18		0.358	0.184	mg/Kg	₽	09/05/13 11:42	09/09/13 17:45	10
PCB-1262	<0.358		0.358	0.293	mg/Kg	₩	09/05/13 11:42	09/09/13 17:45	10
PCB-1268	<0.358		0.358	0.152	mg/Kg	₽	09/05/13 11:42	09/09/13 17:45	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	588	X	30 - 150				09/05/13 11:42	09/09/13 17:45	10
Tetrachloro-m-xylene	114		30 - 150				09/05/13 11:42	09/09/13 17:45	10

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#### **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCSS-06** 

Date Collected: 09/03/13 15:25

Date Received: 09/05/13 09:30

TestAmerica Job ID: 480-45074-1

Lab Sample ID: 480-45074-5

Matrix: Solid

Percent Solids: 92.3

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	401	X	30 - 150	09/05/13 11	09/09/13 17:45	10
DCB Decachlorobiphenyl	326	X	30 - 150	09/05/13 11	42 09/09/13 17:45	10

Client Sample ID: WCSS-07 Lab Sample ID: 480-45074-6

Date Collected: 09/03/13 15:30 Matrix: Solid
Date Received: 09/05/13 09:30 Percent Solids: 91.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.361		0.361	0.230	mg/Kg	\$	09/05/13 11:42	09/09/13 18:46	10
PCB-1221	<0.361		0.361	0.175	mg/Kg	₩	09/05/13 11:42	09/09/13 18:46	10
PCB-1232	<0.361		0.361	0.153	mg/Kg	₽	09/05/13 11:42	09/09/13 18:46	10
PCB-1242	<0.361		0.361	0.142	mg/Kg	₩	09/05/13 11:42	09/09/13 18:46	10
PCB-1248	<0.361		0.361	0.186	mg/Kg	₽	09/05/13 11:42	09/09/13 18:46	10
PCB-1254	<0.361		0.361	0.186	mg/Kg	₽	09/05/13 11:42	09/09/13 18:46	10
PCB-1260	1.93		0.361	0.186	mg/Kg	₽	09/05/13 11:42	09/09/13 18:46	10
PCB-1262	<0.361		0.361	0.295	mg/Kg	₽	09/05/13 11:42	09/09/13 18:46	10
PCB-1268	<0.361		0.361	0.153	mg/Kg	₽	09/05/13 11:42	09/09/13 18:46	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	813	X	30 - 150				09/05/13 11:42	09/09/13 18:46	10
Tetrachloro-m-xylene	196	X	30 - 150				09/05/13 11:42	09/09/13 18:46	10
DCB Decachlorobiphenyl	506	X	30 - 150				09/05/13 11:42	09/09/13 18:46	10
DCB Decachlorobiphenyl	515	X	30 - 150				09/05/13 11:42	09/09/13 18:46	10

Client Sample ID: WCSS-08

Lab Sample ID: 480-45074-7

Date Collected: 09/03/13 15:35

Date Received: 09/05/13 09:30

Matrix: Solid
Percent Solids: 85.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.393		0.393	0.250	mg/Kg	<del>\</del>	09/05/13 11:42	09/09/13 19:01	10
PCB-1221	<0.393		0.393	0.191	mg/Kg	₩	09/05/13 11:42	09/09/13 19:01	10
PCB-1232	<0.393		0.393	0.167	mg/Kg	₽	09/05/13 11:42	09/09/13 19:01	10
PCB-1242	<0.393		0.393	0.155	mg/Kg	₽	09/05/13 11:42	09/09/13 19:01	10
PCB-1248	<0.393		0.393	0.203	mg/Kg	₽	09/05/13 11:42	09/09/13 19:01	10
PCB-1254	<0.393		0.393	0.203	mg/Kg	₽	09/05/13 11:42	09/09/13 19:01	10
PCB-1260	1.57		0.393	0.203	mg/Kg	₽	09/05/13 11:42	09/09/13 19:01	10
PCB-1262	<0.393		0.393	0.322	mg/Kg	₽	09/05/13 11:42	09/09/13 19:01	10
PCB-1268	<0.393		0.393	0.167	mg/Kg	₽	09/05/13 11:42	09/09/13 19:01	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	224	X	30 - 150				09/05/13 11:42	09/09/13 19:01	10
Tetrachloro-m-xylene	110		30 - 150				09/05/13 11:42	09/09/13 19:01	10
DCB Decachlorobiphenyl	156	X	30 - 150				09/05/13 11:42	09/09/13 19:01	10
DCB Decachlorobiphenyl	131		30 - 150				09/05/13 11:42	09/09/13 19:01	10

TestAmerica Job ID: 480-45074-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCSS-09** 

Lab Sample ID: 480-45074-8 Date Collected: 09/03/13 15:40

Matrix: Solid Date Received: 09/05/13 09:30 Percent Solids: 80.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<4.10		4.10	2.61	mg/Kg	₩	09/05/13 11:42	09/09/13 19:31	100
PCB-1221	<4.10		4.10	1.99	mg/Kg	₽	09/05/13 11:42	09/09/13 19:31	100
PCB-1232	<4.10		4.10	1.74	mg/Kg	₩	09/05/13 11:42	09/09/13 19:31	100
PCB-1242	<4.10		4.10	1.62	mg/Kg	₽	09/05/13 11:42	09/09/13 19:31	100
PCB-1248	<4.10		4.10	2.11	mg/Kg	₩	09/05/13 11:42	09/09/13 19:31	100
PCB-1254	<4.10		4.10	2.11	mg/Kg	₩	09/05/13 11:42	09/09/13 19:31	100
PCB-1260	21.0		4.10	2.11	mg/Kg	\$	09/05/13 11:42	09/09/13 19:31	100
PCB-1262	<4.10		4.10	3.35	mg/Kg	₩	09/05/13 11:42	09/09/13 19:31	100
PCB-1268	<4.10		4.10	1.74	mg/Kg	₽	09/05/13 11:42	09/09/13 19:31	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/05/13 11:42	09/09/13 19:31	100
Tetrachloro-m-xylene	0	X	30 - 150				09/05/13 11:42	09/09/13 19:31	100
DCB Decachlorobiphenyl	0	X	30 - 150				09/05/13 11:42	09/09/13 19:31	100
DCB Decachlorobiphenyl	0	X	30 - 150				09/05/13 11:42	09/09/13 19:31	100

**Client Sample ID: WCSS-10** Lab Sample ID: 480-45074-9

Date Collected: 09/03/13 15:45 Matrix: Solid Date Received: 09/05/13 09:30 Percent Solids: 86.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<38.5		38.5	24.5	mg/Kg	₩	09/05/13 11:42	09/10/13 14:55	1000
PCB-1221	<38.5		38.5	18.6	mg/Kg	₽	09/05/13 11:42	09/10/13 14:55	1000
PCB-1232	<38.5		38.5	16.3	mg/Kg	₩	09/05/13 11:42	09/10/13 14:55	1000
PCB-1242	<38.5		38.5	15.2	mg/Kg	₽	09/05/13 11:42	09/10/13 14:55	1000
PCB-1248	<38.5		38.5	19.8	mg/Kg	₩	09/05/13 11:42	09/10/13 14:55	1000
PCB-1254	<38.5		38.5	19.8	mg/Kg	₽	09/05/13 11:42	09/10/13 14:55	1000
PCB-1260	92.2		38.5	19.8	mg/Kg	<b>\$</b>	09/05/13 11:42	09/10/13 14:55	1000
PCB-1262	<38.5		38.5	31.5	mg/Kg	₽	09/05/13 11:42	09/10/13 14:55	1000
PCB-1268	<38.5		38.5	16.3	mg/Kg	₽	09/05/13 11:42	09/10/13 14:55	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61795	X	30 - 150				09/05/13 11:42	09/10/13 14:55	1000
Tetrachloro-m-xylene	11888	X	30 - 150				09/05/13 11:42	09/10/13 14:55	1000

DCB Decachlorobiphenyl 19746 X 30 - 150 09/05/13 11:42 09/10/13 14:55 1000 DCB Decachlorobiphenyl 13291 X 30 - 150 09/05/13 11:42 09/10/13 14:55 1000 Client Sample ID: WCSS-902 Lab Sample ID: 480-45074-10

Date Collected: 09/03/13 15:05 **Matrix: Solid** Date Received: 09/05/13 09:30 Percent Solids: 83.4

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
PCB-1016	<3.97		3.97	2.53	mg/Kg	<del>-</del>	09/05/13 11:42	09/09/13 23:23	100	
PCB-1221	<3.97		3.97	1.93	mg/Kg	₽	09/05/13 11:42	09/09/13 23:23	100	
PCB-1232	<3.97		3.97	1.69	mg/Kg	₽	09/05/13 11:42	09/09/13 23:23	100	
PCB-1242	<3.97		3.97	1.57	mg/Kg	₩	09/05/13 11:42	09/09/13 23:23	100	
PCB-1248	<3.97		3.97	2.05	mg/Kg	₩	09/05/13 11:42	09/09/13 23:23	100	
PCB-1254	<3.97		3.97	2.05	mg/Kg	₽	09/05/13 11:42	09/09/13 23:23	100	

TestAmerica Buffalo

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#### **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 09/05/13 09:30

DCB Decachlorobiphenyl

TestAmerica Job ID: 480-45074-1

Lab Sample ID: 480-45074-10

09/09/13 23:23

09/05/13 11:42

Matrix: Solid

Percent Solids: 83.4

Client Sample ID: WCSS-902	Lab Samp
Date Collected: 09/03/13 15:05	

3284 X

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued) Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac  $\overline{\varphi}$ PCB-1260 25.3 3.97 2.05 mg/Kg 09/05/13 11:42 09/09/13 23:23 100 PCB-1262 <3.97 3.97 09/05/13 11:42 09/09/13 23:23 100 3.25 mg/Kg PCB-1268 <3.97 3.97 1.69 mg/Kg 09/05/13 11:42 09/09/13 23:23 100 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac Tetrachloro-m-xylene 0 X 30 - 150 09/05/13 11:42 09/09/13 23:23 100 0 X 30 - 150 Tetrachloro-m-xylene 09/05/13 11:42 09/09/13 23:23 100 DCB Decachlorobiphenyl 3428 X 30 - 150 09/05/13 11:42 09/09/13 23:23 100

30 - 150

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#### **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45074-1

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid Prep Type: Total/NA

				Percent Su	rrogate Rec
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
480-45074-1	WCSS-02	0 X	0 X	5664 X	2089 X
480-45074-1 MS	WCSS-02	0 X	0 X	2625 X	1426 X
480-45074-1 MSD	WCSS-02	0 X	0 X	3847 X	1696 X
480-45074-2	WCSS-03	156 X	108	427 X	388 X
480-45074-3	WCSS-04	0 X	0 X	2510 X	2619 X
480-45074-4	WCSS-05	0 X	0 X	748 X	520 X
480-45074-5	WCSS-06	588 X	114	401 X	326 X
480-45074-6	WCSS-07	813 X	196 X	506 X	515 X
480-45074-7	WCSS-08	224 X	110	156 X	131
480-45074-8	WCSS-09	0 X	0 X	0 X	0 X
480-45074-9	WCSS-10	61795 X	11888 X	19746 X	13291 X
480-45074-10	WCSS-902	0 X	0 X	3428 X	3284 X
LCS 240-100258/15-A	Lab Control Sample	87	41	91	103
LCSD 240-100258/16-A	Lab Control Sample Dup	87	82	82	88
MB 240-100258/14-A	Method Blank	104	100	84	91

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

TestAmerica Buffalo

TestAmerica Job ID: 480-45074-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 240-100258/14-A

Matrix: Solid

Analysis Batch: 100690

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 100258

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		09/05/13 11:42	09/09/13 18:15	1
PCB-1268	<0.0330		0.0330	0.0140	mg/Kg		09/05/13 11:42	09/09/13 18:15	1

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Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	104	30 - 150	09/05/13 11:42	09/09/13 18:15	1
Tetrachloro-m-xylene	100	30 - 150	09/05/13 11:42	09/09/13 18:15	1
DCB Decachlorobiphenyl	84	30 - 150	09/05/13 11:42	09/09/13 18:15	1
DCB Decachlorobiphenyl	91	30 - 150	09/05/13 11:42	09/09/13 18:15	1

Lab Sample ID: LCS 240-100258/15-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 100690

Analysis Batch: 100690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 100258

		Spike	LUS	LUS				MRC.	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	PCB-1016	 0.333	0.2974		mg/Kg		89	40 - 140	-
	PCB-1260	0.333	0.3217		mg/Kg		97	40 - 140	
- 1									

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	87		30 - 150
Tetrachloro-m-xylene	41		30 - 150
DCB Decachlorobiphenyl	91		30 - 150
DCB Decachlorobiphenyl	103		30 - 150

Lab Sample ID: LCSD 240-100258/16-A

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA Prep Batch: 100258

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
PCB-1016	 0.333	0.2629		mg/Kg		79	40 - 140	12	30	
PCB-1260	0.333	0.2837		mg/Kg		85	40 - 140	13	30	

	LCSD L	.CSD	
Surrogate	%Recovery 0	Qualifier	Limits
Tetrachloro-m-xylene	87		30 - 150
Tetrachloro-m-xylene	82		30 - 150
DCB Decachlorobiphenyl	82		30 - 150
DCB Decachlorobiphenyl	88		30 - 150

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#### **QC Sample Results**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

Lab Sample ID: 480-45074-1 MSD

**Matrix: Solid** 

TestAmerica Job ID: 480-45074-1

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#### Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Lab Sample ID: 480-45074-1 MS **Client Sample ID: WCSS-02** Matrix: Solid Prep Type: Total/NA Analysis Batch: 100690 Prep Batch: 100258 Sample Sample Spike MS MS Result Qualifier Added Analyte Result Qualifier D %Rec Limits Unit ₩ PCB-1016 0.363 NC 40 - 140 <3.65 123.7 E mg/Kg PCB-1260 23.5 0.363 10.49 4 -3599 mg/Kg 40 - 140 MS MS

	WiS	MO			
Surrogate	%Recovery	Qualifier	Limits		
Tetrachloro-m-xylene		X	30 - 150		
Tetrachloro-m-xylene	0	Χ	30 - 150		
DCB Decachlorobiphenyl	2625	X	30 - 150		
DCB Decachlorobiphenyl	1426	X	30 - 150		
_					

Client Sample ID: WCSS-02 Prep Type: Total/NA Prep Batch: 100258

Analysis Batch: 100690 Spike MSD MSD Sample Sample %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit PCB-1016 <3.65 0.361 186.0 E  $\overline{\varphi}$ NC 40 - 140 40 mg/Kg 50 PCB-1260 ₩ 23.5 0.361 16.61 4 mg/Kg -1921 40 - 140 45 50

MSD MSD %Recovery Qualifier Limits Surrogate 0 X 30 - 150 Tetrachloro-m-xylene Tetrachloro-m-xylene 0 X 30 - 150 DCB Decachlorobiphenyl 30 - 150 3847 X DCB Decachlorobiphenyl 1696 X 30 - 150

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TestAmerica Job ID: 480-45074-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

GC Semi VOA

**Prep Batch: 100258** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45074-1	WCSS-02	Total/NA	Solid	3540C	
480-45074-1 MS	WCSS-02	Total/NA	Solid	3540C	
480-45074-1 MSD	WCSS-02	Total/NA	Solid	3540C	
480-45074-2	WCSS-03	Total/NA	Solid	3540C	
480-45074-3	WCSS-04	Total/NA	Solid	3540C	
480-45074-4	WCSS-05	Total/NA	Solid	3540C	
480-45074-5	WCSS-06	Total/NA	Solid	3540C	
480-45074-6	WCSS-07	Total/NA	Solid	3540C	
480-45074-7	WCSS-08	Total/NA	Solid	3540C	
480-45074-8	WCSS-09	Total/NA	Solid	3540C	
480-45074-9	WCSS-10	Total/NA	Solid	3540C	
480-45074-10	WCSS-902	Total/NA	Solid	3540C	
LCS 240-100258/15-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-100258/16-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-100258/14-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 100690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45074-1	WCSS-02	Total/NA	Solid	8082	100258
480-45074-1 MS	WCSS-02	Total/NA	Solid	8082	100258
480-45074-1 MSD	WCSS-02	Total/NA	Solid	8082	100258
480-45074-2	WCSS-03	Total/NA	Solid	8082	100258
480-45074-3	WCSS-04	Total/NA	Solid	8082	100258
480-45074-4	WCSS-05	Total/NA	Solid	8082	100258
480-45074-5	WCSS-06	Total/NA	Solid	8082	100258
480-45074-6	WCSS-07	Total/NA	Solid	8082	100258
480-45074-7	WCSS-08	Total/NA	Solid	8082	100258
480-45074-8	WCSS-09	Total/NA	Solid	8082	100258
480-45074-10	WCSS-902	Total/NA	Solid	8082	100258
LCS 240-100258/15-A	Lab Control Sample	Total/NA	Solid	8082	100258
LCSD 240-100258/16-A	Lab Control Sample Dup	Total/NA	Solid	8082	100258
MB 240-100258/14-A	Method Blank	Total/NA	Solid	8082	100258

Analysis Batch: 100863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45074-9	WCSS-10	Total/NA	Solid	8082	100258

**General Chemistry** 

Analysis Batch: 100331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45074-1	WCSS-02	Total/NA	Solid	Moisture	
480-45074-1 DU	WCSS-02	Total/NA	Solid	Moisture	
480-45074-2	WCSS-03	Total/NA	Solid	Moisture	
480-45074-3	WCSS-04	Total/NA	Solid	Moisture	
480-45074-4	WCSS-05	Total/NA	Solid	Moisture	
480-45074-5	WCSS-06	Total/NA	Solid	Moisture	
480-45074-6	WCSS-07	Total/NA	Solid	Moisture	
480-45074-7	WCSS-08	Total/NA	Solid	Moisture	
480-45074-8	WCSS-09	Total/NA	Solid	Moisture	

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#### **QC Association Summary**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45074-1

#### **General Chemistry (Continued)**

#### Analysis Batch: 100331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45074-9	WCSS-10	Total/NA	Solid	Moisture	
480-45074-10	WCSS-902	Total/NA	Solid	Moisture	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 09/05/13 09:30

Analysis

Moisture

Total/NA

Client Sample ID: WCSS-02	Lab Sample ID: 480-45074-1
Date Collected: 09/03/13 15:05	Matrix: Solid
Date Received: 09/05/13 09:30	Percent Solids: 91.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	8082		100	100690	09/09/13 15:43	HMB	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

Client Sample ID: WCSS-03 Lab Sample ID: 480-45074-2 Date Collected: 09/03/13 15:10 **Matrix: Solid** 

Percent Solids: 75.8

TAL CAN

Batch Batch Dilution Batch Prepared Method Prep Type Туре Run Factor Number or Analyzed Analyst Lab Total/NA Prep 3540C 100258 09/05/13 11:42 CSC TAL CAN Total/NA 8082 100690 09/09/13 16:44 TAL CAN Analysis 10 HMB

Client Sample ID: WCSS-04 Lab Sample ID: 480-45074-3

100331

09/05/13 15:08

NJE

Date Collected: 09/03/13 15:15 **Matrix: Solid** Date Received: 09/05/13 09:30 Percent Solids: 90.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082	<del></del>	100	100690	09/09/13 16:59	HMB	TAL CAN
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

**Client Sample ID: WCSS-05** Lab Sample ID: 480-45074-4

Date Collected: 09/03/13 15:20 **Matrix: Solid** Date Received: 09/05/13 09:30 Percent Solids: 92.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	8082		50	100690	09/09/13 17:30	HMB	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

**Client Sample ID: WCSS-06** Lab Sample ID: 480-45074-5

Date Collected: 09/03/13 15:25 **Matrix: Solid** Date Received: 09/05/13 09:30 Percent Solids: 92.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	8082		10	100690	09/09/13 17:45	HMB	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

TestAmerica Buffalo

TestAmerica Job ID: 480-45074-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-07

Date Collected: 09/03/13 15:30 Date Received: 09/05/13 09:30

Client Sample ID: WCSS-08 Date Collected: 09/03/13 15:35

Date Received: 09/05/13 09:30

Lab Sample ID: 480-45074-6

Matrix: Solid

Percent Solids: 91.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	8082		10	100690	09/09/13 18:46	HMB	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

Lab Sample ID: 480-45074-7

**Matrix: Solid** 

Percent Solids: 85.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	8082		10	100690	09/09/13 19:01	HMB	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

**Client Sample ID: WCSS-09** Lab Sample ID: 480-45074-8

Date Collected: 09/03/13 15:40

Date Received: 09/05/13 09:30

Percent Solids: 80.7

**Matrix: Solid** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		100	100690	09/09/13 19:31	HMB	TAL CAN
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

**Client Sample ID: WCSS-10** Lab Sample ID: 480-45074-9

Date Collected: 09/03/13 15:45

Date Received: 09/05/13 09:30

**Matrix: Solid** Percent Solids: 86.9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1000	100863	09/10/13 14:55	HMB	TAL CAN
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

Client Sample ID: WCSS-902 Lab Sample ID: 480-45074-10

Date Collected: 09/03/13 15:05

Date Received: 09/05/13 09:30

Matrix: Solid Percent Solids: 83.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			100258	09/05/13 11:42	CSC	TAL CAN
Total/NA	Analysis	8082		100	100690	09/09/13 23:23	HMB	TAL CAN
Total/NA	Analysis	Moisture		1	100331	09/05/13 15:08	NJE	TAL CAN

**Laboratory References:** 

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TestAmerica Buffalo

TestAmerica Job ID: 480-45074-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
rkansas DEQ	State Program	6	88-0686	10-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Ilinois	NELAP	5	200003	09-30-13
owa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13 *
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-14

#### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *

 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

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#### **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45074-1

#### Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-14

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#### **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45074-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN

#### Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

#### Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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## **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45074-1

Received	
09/05/13 09:30	
09/05/13 09:30	
09/05/13 09:30	E

Lab Sample ID Client Sample ID		Matrix	Collected	Received		
480-45074-1	WCSS-02	Solid	09/03/13 15:05	09/05/13 09:30		
480-45074-2	WCSS-03	Solid	09/03/13 15:10	09/05/13 09:30		
480-45074-3	WCSS-04	Solid	09/03/13 15:15	09/05/13 09:30		
480-45074-4	WCSS-05	Solid	09/03/13 15:20	09/05/13 09:30		
480-45074-5	WCSS-06	Solid	09/03/13 15:25	09/05/13 09:30		
480-45074-6	WCSS-07	Solid	09/03/13 15:30	09/05/13 09:30		
480-45074-7	WCSS-08	Solid	09/03/13 15:35	09/05/13 09:30		
480-45074-8	WCSS-09	Solid	09/03/13 15:40	09/05/13 09:30		
480-45074-9	WCSS-10	Solid	09/03/13 15:45	09/05/13 09:30		
480-45074-10	WCSS-902	Solid	09/03/13 15:05	09/05/13 09:30		

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# Page 23 of 23

# 9/21/2013

# Chain of Custody Record



on Receipt .

Test<u>America</u>

TAL-4124 (1007) 480-45074	Chain of Cust	ody	. 0.	r? YBS	⊔ <i>/vo</i> :	N.		IHEL	LEADER IN	FMAIR	CONME	VIAL	(ES)	NG:				
Client Woodasold Curran  Address  95 Codor St. Stc. 100  City P. State Zip		I An	تر سنال	بر لماني					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Date 9/	4/13		(	Chain of Custo 238	327	<del>.</del>	•
Address		Telephone	Numbe	er (Area C	OCY ode)/Fax N	umber				······································	Lab Nur	nber						-
95 Cedar St Stc 100						EI I	<b>6</b> )	socol	and cur	Seria Ser					Page/	of		_
City State Zip	Code	Site Conta	ici'	l f	Lab Co	ntaci	_		3	Ала	lysis (Ata space i	tach lis	et if					•
	02903	CarrierWa	S E CC	HOUSE	y Bo	CKY	M	a SOv	भेड़ी	1111	) Space I	1	<i>,,,,</i>	П	1			
Project Name and Location (State)  Quivacy - Taker vale, Courts, ContractPurchase Order/Quote No.	CU MA	Camervia	ayou Ni	umper i					1 HAXS						Spec	ial Instru	ctions/	
Contract/Purchase Order/Quote No.			M	fatrix		Conta Prese										itions of i		
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time 🔾	Aqueous.	Sed.	Unpres. H2SO4	Ниоз	HO'	Zn4o/ NaOH	22									_
WCSS-OZ	9/3/13	1505		X	X				X									-
LCSS-03		1510		X	_X_				X									_
WCSS-04		1515			X				X									_
<u> </u>		1520		X	X		_		X		$\downarrow \downarrow$	_ _		<del>                                     </del>				_
wss-c		1525	1;1	X	X				X							······································	······································	
LXSS-07		1530	111	X	_X_				X									-
WCSS-08		1535		X	X		_		X			11	<u> </u>		ļ			-
<u> </u>		1540		X	X		$\perp$	<b>-</b>   -	X	-			<b> </b>	<u> </u>				_
WCSS-10		1545	11	X	X				X			_ _						_
1XSS-90Z	<u> </u>	i505	1   1	X	X		$\perp$		X	<del>-  </del> -	_			<del>                                     </del>				_
			11							_				-				_
Possible Hazard Identification		<u> </u>	Sample	e Disposal														-
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant	Polson B	X Unknown	□ Re	tum To Cli		Dispos			Archive Fo	or	Month			be asses 1 month	ised if sample: )	are retains	90 	_
Turn Around Time Required  24 Hours	ays 🗌 21 Day		RU	SH	₺	CA	Ми	nts (Spec NCHL	in) ods rca	ei c	l. GI	SKe	y & c	xcci	Ric wa	in pol	Ç r≃b	<b>-</b> ^√-
1. Relinguished Bu		Date 8/4/	//3	TIME	1.	Riogriv	ed By	<u>C</u>		IA	1				9/4/13	1100	7.70	
I. Relinguished By		9/4/13	3	Time	2	Floceid	cores LN	<i>y///</i>		/					Date / 13	Time	30	
3. Relinquished By		Date		Time		Receive	ed By			····	· · · · · · · · · · · · · · · · · · ·				Dale	Time	7	
Comments				<u> </u>	L_										<u>L</u>			-
DISTRIBUTION: WHITE - Returned to Client with Report.	CANARY - Stays	with the Sample	e, PINA	( - Field Co	DDY			,,					· · · · · · · · · · · · · · · · · · ·					-



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-44524-2 Client Project/Site: Quincy Inervale

#### For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

Masen

Authorized for release by: 9/6/2013 9:54:55 AM

Becky Mason, Project Manager II becky.mason@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

### **Qualifiers**

### GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
В	Compound was found in the blank and sample.
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### **Glossary**

TEF

TEQ

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Buffalo

#### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

Job ID: 480-44524-2

**Laboratory: TestAmerica Buffalo** 

Narrative

#### Receipt

The sample was received on 8/24/2013 1:10 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

#### GC Semi VOA

Method MA-EPH: The laboratory control sample duplicate for batch 137023 recovered outside control limits for the following analyte, naprhlene.

Method MA-EPH: Surrogate recovery for the following sample was outside control limits: WCSS-01 (480-44524-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method MA-EPH: The method blank contained Benzo[g,h,i]perylene, Diobenz(a,h)anthracene, Indeno[1,2,3-cd]pyrene, Phenanthrene, and C16-C36 Aliphatics above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. All associated sample positives are qualified with the "B" flag to indicate such. WCSS-01 (480-44524-1).

Per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol; however they do achieve method 1 S1 standards.

No other analytical or quality issues were noted.

#### **Organic Prep**

Method 3546: Due to the matrix, the following sample could not be concentrated to the final method required volume: WCSS-01 (480-44524-1). The reporting limits (RLs) are elevated proportionately.

Method 3546: Final concentrated volume of 1 mL is very thick and dark brown.

No other analytical or quality issues were noted.

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	MassDEP Analytical Protocol Certification Form											
Labor	atory Name:	TestAmeri	ca Buffalo	Project #:	-	480-4452	4-2					
Proje	ect Location:	Qui	ncy	RTN:								
This f	orm provide	es certifications for	the following data	a set: list Laborato	ry Sample ID Num	ber(s):						
480-4	4524-2[1]											
Matric	es:	Groundwater/Surfa	ce Water X	Soil/Sediment	Drinking Water	Air	☐ Ot	her:				
CAM	AM Protocols (check all that apply below):											
3260 \	voc	7470/7471 Hg	Mass DEP VPH	8081 Pesticides	7196 Hex Cr		Mass DEI	PAPH				
CAM I		CAM III B	CAM IV A	CAM V B	CAM VI B		CAM IX A					
	SVOC	6010 Metals	Mass DEP EPH	8151 Herbicides	8330 Explosives		TO-15 VC					
CAM I	пв 🗀	CAM III C	CAM IV B X	CAM V C 9014 Total	CAM VIII A		CAM IX B	·				
6010 ľ	Metals	6020 Metals	8082 PCB	Cyanide/PAC	6860 Perchlorate							
CAM I	III A	CAM III D	CAM V A	CAM VI A	CAM VIII B							
	Affirmative	Responses to Que	stions A through I	F are required for "	Presumptive Cert	ainty" st	atus					
		nples received in a										
	properly premethod hold	served (including ter	mperature) in the fie	eld or laboratory, and	d prepared/analyze	d within	XYes	□ Na				
		alytical method(s) a		O no muino mo o noto o no o		- CAM	IA Yes	No				
В	protocol(s) for	а САМ	XYes	☐ No								
		uired corrective acti		•		ed CAM	X Yes					
	. , ,	mplemented for all id	•			Δ.	Yes	∐ No				
D		oratory report compuration or urance and Quality (										
	Data"?					,	X Yes	☐ No				
		and APH Methods					X Yes	No				
		(s)? (Refer to the ind TO-15 Methods only		-	•	<b>)</b>	 Yes	No				
		olicable CAM protoco					162	1NU				
F		a laboratory narrativ					XYes	□ No				
	Respon	ses to Questions G	, H and I below ar	e required for "Pre	sumptive Certaint	y" status	S					
		porting limits at or be	elow all CAM report	ing limits specified i	n the selected CAM	1		X No1				
	protocol(s)?	Data that achieve "Pr	esumptive Certainty	" status may not nec	essarily meet the d	ata usahil	☐ Yes	Ŭ No¹				
		requirements descri										
Н	Were all QC	performance stand	ards specified in the	e CAM protocol(s) a	chieved?		Yes	X No <sup>1</sup>				
I	Were results	s reported for the co	mplete analyte list s	specified in the selec	cted CAM protocol(	s) ?	X Yes	No <sup>1</sup>				
All ne	egative respo	onses must be addre	essed in an attache	d laboratory narrativ	e.							
		attest under the pair						nsible for				
	ing the inforr curate and co	mation, the material o	contained in this and	alytical report is, to ti	he best of my knowl	edge and	belief,					
		v m										
Signat	ture:	m Ha	2en	Position:	Pr	oject Mar	nager					
Printe	d Name:	Recky	Mason	Date:		9/6/13 9:	22					
		ctronically signed and ap		Date.		5,5,10 3.						

# **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

**Client Sample ID: WCSS-01** 

Lab Sample ID: 480-44524-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene - RE	6.06		3.08	0.499	mg/Kg	1	₩	MA-EPH	Total/NA
Acenaphthylene - RE	6.14		3.08	0.554	mg/Kg	1	₽	MA-EPH	Total/NA
Anthracene - RE	18.7		3.08	0.585	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene - RE	21.8		3.08	0.468	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene - RE	21.8		3.08	0.443	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene - RE	27.9		3.08	0.437	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[g,h,i]perylene - RE	11.8	В	3.08	0.523	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene - RE	12.4		3.08	0.449	mg/Kg	1	₩	MA-EPH	Total/NA
2-Methylnaphthalene - RE	6.14		3.08	0.603	mg/Kg	1	₽	MA-EPH	Total/NA
Chrysene - RE	38.7		3.08	0.548	mg/Kg	1	₩	MA-EPH	Total/NA
Dibenz(a,h)anthracene - RE	8.87	В	3.08	0.431	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene - RE	52.4		3.08	0.542	mg/Kg	1	₽	MA-EPH	Total/NA
Fluorene - RE	7.08		3.08	0.616	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene - RE	13.6	В	3.08	0.449	mg/Kg	1	₽	MA-EPH	Total/NA
Naphthalene - RE	3.55	*	3.08	0.517	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene - RE	42.4	В	3.08	0.616	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene - RE	36.0		3.08	0.560	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted) - RE	2800		30.8	12.3	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics - RE	3030	В	30.8	12.3	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics - RE	1180		30.8	12.3	mg/Kg	1	₽	MA-EPH	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	2470		6.25	6.25	mg/Kg		₩	MA-EPH	Total/NA

# **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCSS-01** 

Date Collected: 08/23/13 10:10

Date Received: 08/24/13 01:10

TestAmerica Job ID: 480-44524-2

Lab Sample ID: 480-44524-1

Matrix: Solid

Percent Solids: 79.9

Method: MA-EPH - Massachusetts	- Extractable	Petroleum	Hydrocarbo	ons (GC)						
Analyte	Result	Qualifier	RL	RL	Unit	I	D	Prepared	Analyzed	Dil Fac
			0.05				**		00/04/40 00 00	

C11-C22 Aromatics (Adjusted)	2470		6.25	6.25	mg/Kg	<u> </u>		09/04/13 09:28	1
Method: MA-EPH - Massachusett	s - Extractable	Petroleum F	lydrocarbons	(GC) - R	E				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	6.06		3.08	0.499	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
Acenaphthylene	6.14		3.08	0.554	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1
Anthracene	18.7		3.08	0.585	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1
Benzo[a]anthracene	21.8		3.08	0.468	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1
Benzo[a]pyrene	21.8		3.08	0.443	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1
Benzo[b]fluoranthene	27.9		3.08	0.437	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
Benzo[g,h,i]perylene	11.8	В	3.08	0.523	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1
Benzo[k]fluoranthene	12.4		3.08	0.449	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
2-Methylnaphthalene	6.14		3.08	0.603	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
Chrysene	38.7		3.08	0.548	mg/Kg	\$	09/03/13 09:54	09/04/13 05:10	1
Dibenz(a,h)anthracene	8.87	В	3.08	0.431	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
Fluoranthene	52.4		3.08	0.542	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
Fluorene	7.08		3.08	0.616	mg/Kg	≎	09/03/13 09:54	09/04/13 05:10	1
Indeno[1,2,3-cd]pyrene	13.6	В	3.08	0.449	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
Naphthalene	3.55	*	3.08	0.517	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
Phenanthrene	42.4	В	3.08	0.616	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1
Pyrene	36.0		3.08	0.560	mg/Kg	₩	09/03/13 09:54	09/04/13 05:10	1
C11-C22 Aromatics (unadjusted)	2800		30.8	12.3	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1
C19-C36 Aliphatics	3030	В	30.8	12.3	mg/Kg	φ.	09/03/13 09:54	09/04/13 05:10	1
C9-C18 Aliphatics	1180		30.8	12.3	mg/Kg	₽	09/03/13 09:54	09/04/13 05:10	1

١	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctadecane	16	X	40 - 140	09/03/13 09:54	09/04/13 05:10	1
١	2-Bromonaphthalene	26	X	40 - 140	09/03/13 09:54	09/04/13 05:10	1
١	2-Fluorobiphenyl	24	X	40 - 140	09/03/13 09:54	09/04/13 05:10	1
١	o-Terphenyl	38	X	40 - 140	09/03/13 09:54	09/04/13 05:10	1

# **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

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Method: MA-EPH	- Massachusetts	<ul> <li>Extractable</li> </ul>	Petroleum	Hydrocarbons (	(GC)
----------------	-----------------	---------------------------------	-----------	----------------	------

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rogate Rec
		1COD2	2BN1	FBP1	OTPH1
Lab Sample ID	Client Sample ID	(40-140)	(40-140)	(40-140)	(40-140)
480-44524-1 - RE	WCSS-01	16 X	26 X	24 X	38 X
LCS 480-137023/2-B	Lab Control Sample	76	68	92	76
LCSD 480-137023/3-B	Lab Control Sample Dup	71	67	91	67
MB 480-137023/1-B	Method Blank	74	71	90	73

### Surrogate Legend

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

TestAmerica Job ID: 480-44524-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

MR MR

Lab Sample ID: MB 480-137023/1-B

Matrix: Solid

Analysis Batch: 137142

Client Sample ID: Method Blank **Prep Type: Total/NA** 

**Prep Batch: 137023** 

	MR	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	<0.468		0.468	0.0758	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Acenaphthylene	<0.468		0.468	0.0842	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Anthracene	<0.468		0.468	0.0889	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Benzo[a]anthracene	<0.468		0.468	0.0711	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Benzo[a]pyrene	<0.468		0.468	0.0674	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Benzo[b]fluoranthene	<0.468		0.468	0.0664	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Benzo[g,h,i]perylene	0.1964	J	0.468	0.0795	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Benzo[k]fluoranthene	<0.468		0.468	0.0683	mg/Kg		09/03/13 09:53	09/04/13 03:42	
2-Methylnaphthalene	<0.468		0.468	0.0917	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Chrysene	<0.468		0.468	0.0833	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Dibenz(a,h)anthracene	0.09118	J	0.468	0.0655	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Fluoranthene	<0.468		0.468	0.0823	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Fluorene	<0.468		0.468	0.0935	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Indeno[1,2,3-cd]pyrene	0.1103	J	0.468	0.0683	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Naphthalene	<0.468		0.468	0.0786	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Phenanthrene	0.1137	J	0.468	0.0935	mg/Kg		09/03/13 09:53	09/04/13 03:42	
Pyrene	<0.468		0.468	0.0851	mg/Kg		09/03/13 09:53	09/04/13 03:42	
C11-C22 Aromatics (unadjusted)	<4.68		4.68	1.87	mg/Kg		09/03/13 09:53	09/04/13 03:42	
C19-C36 Aliphatics	1.911	J	4.68	1.87	mg/Kg		09/03/13 09:53	09/04/13 03:42	
C9-C18 Aliphatics	<4.68		4.68	1.87	mg/Kg		09/03/13 09:53	09/04/13 03:42	

MB MB

- 1							
	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctadecane	74		40 - 140	09/03/13 09:53	09/04/13 03:42	1
	2-Bromonaphthalene	71		40 - 140	09/03/13 09:53	09/04/13 03:42	1
	2-Fluorobiphenyl	90		40 - 140	09/03/13 09:53	09/04/13 03:42	1
١	o-Terphenyl	73		40 - 140	09/03/13 09:53	09/04/13 03:42	1

Lab Sample ID: LCS 480-137023/2-B

**Matrix: Solid** 

Analysis Batch: 137142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 137023

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	4.89	2.807		mg/Kg		57	40 - 140	
Acenaphthylene	4.89	3.141		mg/Kg		64	40 - 140	
Anthracene	4.89	4.050		mg/Kg		83	40 - 140	
Benzo[a]anthracene	4.89	4.223		mg/Kg		86	40 - 140	
Benzo[a]pyrene	4.89	4.287		mg/Kg		88	40 - 140	
Benzo[b]fluoranthene	4.89	4.298		mg/Kg		88	40 - 140	
Benzo[g,h,i]perylene	4.89	3.495		mg/Kg		71	40 - 140	
Benzo[k]fluoranthene	4.89	4.224		mg/Kg		86	40 - 140	
2-Methylnaphthalene	4.89	2.399		mg/Kg		49	40 - 140	
Chrysene	4.89	4.291		mg/Kg		88	40 - 140	
Dibenz(a,h)anthracene	4.89	3.898		mg/Kg		80	40 - 140	
Fluoranthene	4.89	4.013		mg/Kg		82	40 - 140	
Fluorene	4.89	3.559		mg/Kg		73	40 - 140	
Indeno[1,2,3-cd]pyrene	4.89	3.713		mg/Kg		76	40 - 140	
Naphthalene	4.89	2.088		mg/Kg		43	40 - 140	
Phenanthrene	4.89	3.930		mg/Kg		80	40 - 140	

TestAmerica Buffalo

Page 9 of 17

TestAmerica Job ID: 480-44524-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-137023/2-B

Lab Sample ID: LCSD 480-137023/3-B

**Matrix: Solid** 

Analysis Batch: 137142

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 137023** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Pyrene	4.89	4.102		mg/Kg		84	40 - 140	
C11-C22 Aromatics (unadjusted)	83.2	61.37		mg/Kg		74	40 - 140	
C19-C36 Aliphatics	39.1	26.63		mg/Kg		68	40 - 140	
C9-C18 Aliphatics	29.4	17.39		mg/Kg		59	40 - 140	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	76		40 - 140
2-Bromonaphthalene	68		40 - 140
2-Fluorobiphenyl	92		40 - 140
o-Terphenyl	76		40 - 140

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

64

40 - 140

40 - 140

**Matrix: Solid** 

C19-C36 Aliphatics

C9-C18 Aliphatics

					ор .	ype. io		
						Prep I	Batch: 1	37023
Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4.69	2.504		mg/Kg		53	40 - 140	11	25
4.69	2.714		mg/Kg		58	40 - 140	15	25
4.69	3.426		mg/Kg		73	40 - 140	17	25
4.69	3.592		mg/Kg		77	40 - 140	16	25
4.69	3.625		mg/Kg		77	40 - 140	17	25
4.69	3.623		mg/Kg		77	40 - 140	17	25
4.69	2.999		mg/Kg		64	40 - 140	15	25
4.69	3.600		mg/Kg		77	40 - 140	16	25
4.69	2.144		mg/Kg		46	40 - 140	11	25
4.69	3.649		mg/Kg		78	40 - 140	16	25
4.69	3.361		mg/Kg		72	40 - 140	15	25
4.69	3.408		mg/Kg		73	40 - 140	16	25
4.69	3.026		mg/Kg		64	40 - 140	16	25
4.69	3.157		mg/Kg		67	40 - 140	16	25
4.69	1.830	*	mg/Kg		39	40 - 140	13	25
4.69	3.324		mg/Kg		71	40 - 140	17	25
4.69	3.469		mg/Kg		74	40 - 140	17	25
79.8	52.56		mg/Kg		66	40 - 140	15	25
	Added  4.69	Added         Result           4.69         2.504           4.69         2.714           4.69         3.426           4.69         3.592           4.69         3.625           4.69         3.623           4.69         2.999           4.69         3.600           4.69         3.649           4.69         3.361           4.69         3.408           4.69         3.026           4.69         3.157           4.69         1.830           4.69         3.324           4.69         3.469	Added         Result         Qualifier           4.69         2.504           4.69         2.714           4.69         3.426           4.69         3.592           4.69         3.625           4.69         3.623           4.69         2.999           4.69         3.600           4.69         3.649           4.69         3.361           4.69         3.408           4.69         3.026           4.69         3.157           4.69         1.830           4.69         3.324           4.69         3.469	Added         Result         Qualifier         Unit           4.69         2.504         mg/Kg           4.69         2.714         mg/Kg           4.69         3.426         mg/Kg           4.69         3.592         mg/Kg           4.69         3.625         mg/Kg           4.69         3.623         mg/Kg           4.69         2.999         mg/Kg           4.69         3.600         mg/Kg           4.69         3.649         mg/Kg           4.69         3.361         mg/Kg           4.69         3.408         mg/Kg           4.69         3.026         mg/Kg           4.69         3.157         mg/Kg           4.69         3.324         mg/Kg           4.69         3.324         mg/Kg	Added         Result         Qualifier         Unit         D           4.69         2.504         mg/Kg         mg/Kg           4.69         2.714         mg/Kg         mg/Kg           4.69         3.426         mg/Kg           4.69         3.592         mg/Kg           4.69         3.625         mg/Kg           4.69         3.623         mg/Kg           4.69         3.600         mg/Kg           4.69         3.600         mg/Kg           4.69         3.649         mg/Kg           4.69         3.361         mg/Kg           4.69         3.408         mg/Kg           4.69         3.026         mg/Kg           4.69         3.157         mg/Kg           4.69         1.830         mg/Kg           4.69         3.324         mg/Kg           4.69         3.469         mg/Kg	Added         Result         Qualifier         Unit         D         %Rec           4.69         2.504         mg/Kg         53           4.69         2.714         mg/Kg         58           4.69         3.426         mg/Kg         73           4.69         3.592         mg/Kg         77           4.69         3.625         mg/Kg         77           4.69         2.999         mg/Kg         64           4.69         3.600         mg/Kg         77           4.69         3.649         mg/Kg         78           4.69         3.361         mg/Kg         73           4.69         3.408         mg/Kg         73           4.69         3.026         mg/Kg         64           4.69         3.157         mg/Kg         67           4.69         3.324         mg/Kg         71           4.69         3.324         mg/Kg         74	Spike         LCSD         LCSD         WRec.         WRec.         Limits           4.69         2.504         mg/Kg         53         40 - 140           4.69         2.714         mg/Kg         58         40 - 140           4.69         3.426         mg/Kg         73         40 - 140           4.69         3.592         mg/Kg         77         40 - 140           4.69         3.625         mg/Kg         77         40 - 140           4.69         3.623         mg/Kg         77         40 - 140           4.69         3.600         mg/Kg         77         40 - 140           4.69         3.600         mg/Kg         77         40 - 140           4.69         3.649         mg/Kg         78         40 - 140           4.69         3.361         mg/Kg         78         40 - 140           4.69         3.308         mg/Kg         72         40 - 140           4.69         3.308         mg/Kg         73         40 - 140           4.69         3.308         mg/Kg         73         40 - 140           4.69         3.408         mg/Kg         73         40 - 140           4.69<	Prep Batch: 1           Spike         LCSD         LCSD         WRec.         Limits         RPD           4.69         2.504         mg/Kg         53         40 - 140         11           4.69         2.714         mg/Kg         58         40 - 140         15           4.69         3.426         mg/Kg         73         40 - 140         17           4.69         3.592         mg/Kg         77         40 - 140         16           4.69         3.625         mg/Kg         77         40 - 140         17           4.69         3.623         mg/Kg         77         40 - 140         17           4.69         3.600         mg/Kg         64         40 - 140         15           4.69         3.649         mg/Kg         77         40 - 140         16           4.69         3.361         mg/Kg         78         40 - 140         11           4.69         3.3408         mg/Kg         78         40 - 140         16           4.69         3.157         mg/Kg         73         40 - 140         16           4.69         3.157         mg/Kg         64         40 - 140         16

37.6

28.2

23.97

15.07

mg/Kg

mg/Kg

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	71		40 - 140
2-Bromonaphthalene	67		40 - 140
2-Fluorobiphenyl	91		40 - 140
o-Terphenyl	67		40 - 140

TestAmerica Buffalo

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

GC Semi VOA

<b>Prep Bato</b>	h: 1	37023
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-44524-1 - RE	WCSS-01	Total/NA	Solid	3546	
LCS 480-137023/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 480-137023/3-B	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 480-137023/1-B	Method Blank	Total/NA	Solid	3546	

### Fraction Batch: 137110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-44524-1 - RE	WCSS-01	Total/NA	Solid	MA EPH Frac	137023
LCS 480-137023/2-B	Lab Control Sample	Total/NA	Solid	MA EPH Frac	137023
LCSD 480-137023/3-B	Lab Control Sample Dup	Total/NA	Solid	MA EPH Frac	137023
MB 480-137023/1-B	Method Blank	Total/NA	Solid	MA EPH Frac	137023

## Analysis Batch: 137142

Lab Sample ID 480-44524-1 - RE	Client Sample ID WCSS-01	Prep Type Total/NA	Matrix Solid	Method MA-EPH	Prep Batch 137110
LCS 480-137023/2-B	Lab Control Sample	Total/NA	Solid	MA-EPH	137110
LCSD 480-137023/3-B	Lab Control Sample Dup	Total/NA	Solid	MA-EPH	137110
MB 480-137023/1-B	Method Blank	Total/NA	Solid	MA-EPH	137110

#### Analysis Batch: 137212

— Harris Batch. 137212					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-44524-1	WCSS-01	Total/NA	Solid	MA-EPH	

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### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

Lab Sample ID: 480-44524-1

Matrix: Solid

Percent Solids: 79.9

Client Sample ID: WCSS-01 Date Collected: 08/23/13 10:10 Date Received: 08/24/13 01:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546	RE		137023	09/03/13 09:54	CAM	TAL BUF
Total/NA	Fraction	MA EPH Frac	RE		137110	09/03/13 16:24	DLE	TAL BUF
Total/NA	Analysis	MA-EPH	RE	1	137142	09/04/13 05:10	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	137212	09/04/13 09:28	DGB	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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TestAmerica Job ID: 480-44524-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

### Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Arkansas DEQ	State Program	6	88-0686	10-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-09 *
Georgia	State Program	4	N/A	03-31-14
Georgia	State Program	4	956	03-31-09 *
Ilinois	NELAP	5	200003	09-30-13
owa	State Program	7	374	03-01-09 *
owa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-08 *
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-09 *
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
JSDA	Federal		P330-11-00386	11-22-14
√irginia	NELAP	3	460185	09-14-13 *
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	09-30-13

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 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

Method	Method Description	Protocol	Laboratory
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF

#### **Protocol References:**

MA DEP = Massachusetts Department Of Environmental Protection

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-44524-1	WCSS-01	Solid	08/23/13 10:10	08/24/13 01:10

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ΔLPHA	CHAIN C	OF CUSTODY	PAGE OF	Date Rec'd in La	ab:	ALPHA J	ob #:
WESTBORO, MA	MANSFIELD. MA	Project Information		Report Inform	ation - Data Deliverables	Billing In	formation
TEL: 508-898-9220 FAX: 508-898-9193	TEL: 508-822-9300 FAX: 508-822-3288	Project Name: Quincy:	Intervie	□ FAX	<b>E</b> MAIL	☐ Same as	Client info PO #:
lient Informatio	on	Project Location:	Y MA	Domilatory Bo	☐ Add'l Deliverables		
<sup>ent:</sup> Wळत्	end & Curran	Project #: 22 6 332			quirements/Report Limits	torio	
ress: 93 Q	tu 5+ Ste 100	Project Manager:	y: woodersterm	State /Fed Progra	<u>+</u>	teria	BLE CONFIDENCE PROT
ovidence	R1 02903	ALPHA Quote #:		Yes No	Are MCP Analytical Method		MBLE CONFIDENCE PROT
one: (`+ & i) 2	73.1007	Turn-Around Time		☐ Yes ☐ No	•		? (If yes see note in Comments
<b>(</b> :			only confirmed if pre-approved!)	☐ Yes ☐ No	Are CT RCP (Reasonable C	onfidence Proto	ocols) Required?
iail: a revey &	e waded when co	n (for EPH) Date Due:	Time:	ANALYSIS FFF (Symodeca)	<del>%</del> / / / / /	1/1/1	SAMPLE HANDLING
	we been previously analyzed by Alp	2 1111 101 1013		ANALYSIS Fr Garadec	i + i + i + i + i + i + i + i + i + i +	////	Filtration
MS is required , in		its which samples and what tests MS t	o be performed.	<b>A</b> S S			☐ Done ☐ Not needed
Note: All <b>CAM</b> met Requestin	thods for inorganic analyses require スータインドロックストラ	MS every 20 soil samples)	repect	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	AAAAAA	A/A	☐ Lab to do
	às required.			Massider AN		$I \neq I$ :	<ul><li>Preservation</li><li>□ Lab to do</li></ul>
LPHA Lab ID ab Use Only)	Sample ID	Collection Date Tim	Sample Sampler' e Matrix Initials	s \ \ \frac{1}{2} \ \frac{1}{2		, <del>-</del>	(Please specify below)  Sample Specific Comments
	>-11.05	· · · · · · · · · · · · · · · · · · ·	0 SO:1 JP	XX			
	MC32-01	8152113 10:1	0 2011 Ib				
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							3.9#
PLEASE ANSWE	ER QUESTIONS ABOVE!		Container Type				Please print clearly, legibly and c
S VOLID F	PROJECT -		Preservative				oletely. Samples can not be logg n and turnaround time clock will
		Relinquished By:	Date/Time		eived By:	ate/Time	start until any ambiguities are res All samples submitted are subject
IA WOP (	or CT RCP?	who I	8/23/13 122		3/13	11225	Alpha's Terms and Conditions.
M NO: 01-01 (rev. 18-	Jan-2010)	WI H	8/23/15/6	,6) /	TAC di		See reverse side.
				<u> </u>			
				N A			

# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-44524-2

Login Number: 44524 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-44524-1

Client Project/Site: Quincy Inervale

Revision: 1

For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

h Masen

Authorized for release by: 10/11/2013 3:17:27 PM

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-44524-1

### **Qualifiers**

### **GC Semi VOA**

X Surrogate is outside control limits

## **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery

%R Percent Recovery
CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit
MDC Minimum detectable concentration
MDL Method Detection Limit

MDL Method Detection Limit
ML Minimum Level (Dioxin)
NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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#### **Case Narrative**

Client: Woodard & Curran Inc

TestAmerica Job ID: 480-44524-1

Project/Site: Quincy Inervale

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Job ID: 480-44524-1

**Laboratory: TestAmerica Buffalo** 

#### Narrative

Revised report: All soil units that were reporting as ug/Kg have been changed to mg/Kg per client request. This report replaces final report from 8/27/13.

#### Receipt

The sample was received on 8/24/2013 1:10 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

Rush PCB analysis only EPH will be reported on job 480-44524-2.

#### GC Semi VOA

Method 8082: The following sample were diluted to bring the concentration of target analytes within the calibration range: WCSS-01 (480-44524-1). Elevated reporting limits (RLs) are provided.

Due to dilution required, per question G on the MassDEP Analytical Protocol Certification Form, the CAM reporting limits specified in this CAM protocol could not be achieved for some or all samples/analytes.

No analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

		Mass	DEP Analytica	l Protocol Certif	ication Form	
Labora	atory Name:	TestAmeri	ica Buffalo	Project #:	480-4452	24-1
Projec	ct Location:	Qui	incy	RTN:		
This fo	orm provide	es certifications for	the following dat	a set: list Laborato	ry Sample ID Number(s):	
	524-1[1]				- · · · · · · · · · · · · · · · · · · ·	
Matrice		Groundwater/Surfa		Soil/Sediment	Drinking Water	U Other:
<b>CAM F</b> 3260 V		(check all that ap	Mass DEP VPH	8081 Pesticides	7196 Hex Cr	Mass DEP APH
CAM II		CAM III B	CAM IV A	CAM V B	CAM VI B	CAM IX A
3270 S		6010 Metals	Mass DEP EPH	8151 Herbicides	8330 Explosives	TO-15 VOC
CAM II	В	CAM III C	CAM IV B	CAM V C 9014 Total	CAM VIII A	CAM IX B
6010 M	1etals	6020 Metals	8082 PCB	Cyanide/PAC	6860 Perchlorate	
CAM II	IA 🗌	CAM III D	CAM V A	CAM VI A	CAM VIII B	
ļ	Affirmative	Responses to Que	stions A through	F are required for "	Presumptive Certainty" s	atus
					d on the Chain-of-Custody,	
٦	properly pres method hold		mperature) in the fi	eld or laboratory, and	d prepared/analyzed within	X Yes No
	Were the an protocol(s) for		nd all associated C	C requirements spe	cified in the selected CAM	X Yes No
					ecified in the selected CAM	
		•	•	ce standard non-cor		X Yes No
D "					pecified in CAM VII A, and Reporting of Analytical	X Yes No
				ethod conducted with for a list of significan		Yes No
				e analyte list reporte		☐Yes ☐ No
F \	Were all app	olicable CAM protoco	ol QC and performa	ance standard non-c	onformances identified and	
•					stions A through E)? sumptive Certainty" statu	X Yes No
1				ting limits specified in		<u> </u>
	orotocol(s)?	borting limits at or be	elow all CAM Tepol	ing iimis specified i	Title selected CAM	Yes X No <sup>1</sup>
				" status may not ned 1056 (2)(k) and WCS	essarily meet the data usab	ility and
		•		e CAM protocol(s) a		X Yes No <sup>1</sup>
					eted CAM protocol(s) ?	X Yes No <sup>1</sup>
				d laboratory narrativ		
					oon my personal inquiry of the	
	ng the inforn urate and col	*	contained in this an	aıytıcaı report is, to ti	ne best of my knowledge and	n belief,
Signatu	ure:	h Ma	Den	Position:	Project Ma	nager
Printed	I Name:	Becky	Mason	Date:	8/27/13 1	2:16
		ctronically signed and ap		<b>-</b>		

# **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-01

TestAmerica Job ID: 480-44524-1

Lab Sample ID: 480-44524-1

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
PCB-1260	286	61.6	31.7 mg/Kg	1000 🛱 8082	Total/NA

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# **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCSS-01** 

Date Collected: 08/23/13 10:10

Date Received: 08/24/13 01:10

TestAmerica Job ID: 480-44524-1

Lab Sample ID: 480-44524-1

Matrix: Solid

Percent Solids: 79.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<61.6		61.6	39.2	mg/Kg	\$	08/26/13 07:07	08/26/13 17:39	1000
PCB-1221	<61.6		61.6	29.9	mg/Kg	₽	08/26/13 07:07	08/26/13 17:39	1000
PCB-1232	<61.6		61.6	26.1	mg/Kg	₩	08/26/13 07:07	08/26/13 17:39	1000
PCB-1242	<61.6		61.6	24.3	mg/Kg	₽	08/26/13 07:07	08/26/13 17:39	1000
PCB-1248	<61.6		61.6	31.7	mg/Kg	₽	08/26/13 07:07	08/26/13 17:39	1000
PCB-1254	<61.6		61.6	31.7	mg/Kg	₽	08/26/13 07:07	08/26/13 17:39	1000
PCB-1260	286		61.6	31.7	mg/Kg	₽	08/26/13 07:07	08/26/13 17:39	1000
PCB-1262	<61.6		61.6	50.4	mg/Kg	₽	08/26/13 07:07	08/26/13 17:39	1000
PCB-1268	<61.6		61.6	26.1	mg/Kg	₽	08/26/13 07:07	08/26/13 17:39	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	118734	X	30 - 150				08/26/13 07:07	08/26/13 17:39	1000
Tetrachloro-m-xylene	18061	X	30 - 150				08/26/13 07:07	08/26/13 17:39	1000
DCB Decachlorobiphenyl	40836	X	30 - 150				08/26/13 07:07	08/26/13 17:39	1000
DCB Decachlorobiphenyl	21217	X	30 - 150				08/26/13 07:07	08/26/13 17:39	1000

TestAmerica Buffalo

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# **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-1

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid Prep Type: Total/NA

		Percent Surroga				
		TCX1	TCX2	DCB1	DCB2	
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)	
480-44524-1	WCSS-01	118734 X	18061 X	40836 X	21217 X	
LCS 240-98858/4-A	Lab Control Sample	96	87	104	107	
LCSD 240-98858/5-A	Lab Control Sample Dup	91	83	101	99	
MB 240-98858/3-A	Method Blank	88	96	100	95	

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

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TestAmerica Job ID: 480-44524-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

# Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 240-98858/3-A

Matrix: Solid

Analysis Batch: 99004

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 98858

MB	MB	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1221	< 0.0330		0.0330	0.0160	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1232	< 0.0330		0.0330	0.0140	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1248	< 0.0330		0.0330	0.0170	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1254	< 0.0330		0.0330	0.0170	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1262	< 0.0330		0.0330	0.0270	mg/Kg		08/26/13 07:07	08/26/13 17:55	1
PCB-1268	< 0.0330		0.0330	0.0140	mg/Kg		08/26/13 07:07	08/26/13 17:55	1

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Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88	30 - 150	08/26/13 07:07	08/26/13 17:55	1
Tetrachloro-m-xylene	96	30 - 150	08/26/13 07:07	08/26/13 17:55	1
DCB Decachlorobiphenyl	100	30 - 150	08/26/13 07:07	08/26/13 17:55	1
DCB Decachlorobiphenyl	95	30 - 150	08/26/13 07:07	08/26/13 17:55	1

Lab Sample ID: LCS 240-98858/4-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 99004

Lab Sample ID: LCSD 240-98858/5-A

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 98858

		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016		0.333	0.2950		mg/Kg		89	40 - 140	
PCB-1260		0.333	0.3387		mg/Kg		102	40 - 140	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	96		30 - 150
Tetrachloro-m-xylene	87		30 - 150
DCB Decachlorobiphenyl	104		30 - 150
DCB Decachlorobiphenyl	107		30 - 150

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 98858

Analysis Batch: 99004							Prep	Batch:	98858
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	0.333	0.2775		mg/Kg		83	40 - 140	6	30
PCB-1260	0.333	0.3297		ma/Ka		99	40 _ 140	3	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	91		30 - 150
Tetrachloro-m-xylene	83		30 - 150
DCB Decachlorobiphenyl	101		30 - 150
DCB Decachlorobiphenyl	99		30 - 150

TestAmerica Buffalo

# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-1

## GC Semi VOA

### Prep Batch: 98858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
480-44524-1	WCSS-01	Total/NA	Solid	3540C
LCS 240-98858/4-A	Lab Control Sample	Total/NA	Solid	3540C
LCSD 240-98858/5-A	Lab Control Sample Dup	Total/NA	Solid	3540C
MB 240-98858/3-A	Method Blank	Total/NA	Solid	3540C

### Analysis Batch: 99004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-44524-1	WCSS-01	Total/NA	Solid	8082	98858
LCS 240-98858/4-A	Lab Control Sample	Total/NA	Solid	8082	98858
LCSD 240-98858/5-A	Lab Control Sample Dup	Total/NA	Solid	8082	98858
MB 240-98858/3-A	Method Blank	Total/NA	Solid	8082	98858

# **General Chemistry**

## Analysis Batch: 135776

La	ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
48	80-44524-1	WCSS-01	Total/NA	Solid	Moisture	

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### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-1

Lab Sample ID: 480-44524-1

Matrix: Solid

Percent Solids: 79.9

<b>Client Sample ID: WCSS-01</b>
Date Collected: 08/23/13 10:10
Date Received: 08/24/13 01:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			98858	08/26/13 07:07	CSC	TAL CAN
Total/NA	Analysis	8082		1000	99004	08/26/13 17:39	HMB	TAL CAN
Total/NA	Analysis	Moisture		1	135776	08/24/13 12:51	GTG	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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TestAmerica Job ID: 480-44524-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Arkansas DEQ	State Program	6	88-0686	11-06-13
California	NELAP	9	1169CA	10-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	10-01-13
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *

 $<sup>\</sup>ensuremath{^{\star}}$  Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

# **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-1

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### Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-14

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# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL CAN
Moisture	Percent Moisture	EPA	TAL BUF

#### Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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# **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-44524-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-44524-1	WCSS-01	Solid	08/23/13 10:10	08/24/13 01:10

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<b>MLPHA</b>	OHAIII OI	F CUSTODY PA	GEOF	Date Rec'd in L	ab:	ALPHA Job #:
VESTBORO, MA	MANSFIELD. MA	Project Information		Report Inforr	nation - Data Deliverables	Billing Information
EL: 508-898-9220 FAX: 508-898-9193	TEL: 508-822-9300 FAX: 508-822-3288	Project Name: Quincy-In	Herv. La	☐ FAX	<b>E</b> EMAIL	☐ Same as Client info PO #:
lient Information		Project Location:	Ma -	ADEx	☐ Add'l Deliverables	
ient: Woodan	nd & Curran	Project #: 22 6 332			equirements/Report Limits	
tress: 95 Ceck	or 34. Ste 100	Project Manager:	arevere	State /Fed Progr		T REASONABLE CONFIDENCE PROT
covictance	RI 02903	ALPHA Quote #:		☐ Yes ☐ No	Are MCP Analytical Methods	
one: (401)2-	13.1007	Turn-Around Time		☐ Yes ☐ No	Is Matrix Spike (MS) Require	d on this SDG? (If yes see note in Comments
(: 		Standard RUSH (only co	confirmed if pre-approved!)	☐ Yes ☐ No	_	nfidence Protocols) Required?
These samples have Other Project Spe f MS is required , indic	ods for inorganic analyses require MS	ents/Detection Limits: which samples and what tests MS to be	Time: performed.	Mass DEPER.  R.B. WM. School		SAMPLE HANDLING  Filtration Done Not needed Lab to do Preservation Lab to do
ALPHA Lab ID		Collection	Sample Sampler's	F. 8. 8.		(Please specify below)
Lab Use Only)	Sample ID	Date Time		XX	· · · · · · · · · · · · · · · · · · ·	Sample Specific Comments
						3.9#/
PLEASE ANSWER	R QUESTIONS ABOVE!		Container Type Preservative			Please print clearly, legibly and opletely. Samples can not be log.

# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-44524-1

Login Number: 44524 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Answer	Comment
True	
True	
True	
True	
True	
True	
True	
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N/A	
N/A	
	True True True True True True True True

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-45973-1 Client Project/Site: Quincy Inervale

For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

hasen

Authorized for release by: 9/24/2013 1:35:25 PM

Becky Mason, Project Manager II becky.mason@testamericainc.com

·····LINKS ······

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Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

### **Qualifiers**

#### **Metals**

F MS/MSD Recovery and/or RPD exceeds the control limits

### **General Chemistry**

er Description

Not Calculated

**Quality Control** 

Relative error ratio

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

F MS/MSD Recovery and/or RPD exceeds the control limits

### **Glossary**

NC

ND

PQL

QC

RER

RPD

TEF TEQ

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

#### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

Job ID: 480-45973-1

Laboratory: TestAmerica Buffalo

Narrative

#### Receipt

The samples were received on 9/16/2013 3:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

#### Metals

Method 6010: The Serial Dilution (480-45973-1 SD) in batch 480-139756, exhibited a result outside the quality control limits for total chromium. However, the Post Digestion Spike was compliant so no corrective action was necessary

Method 6010: The Matrix Spike Duplicate ( (480-45973-1 MSD)) recovery for total chromium in batch 480-139756 was outside control limits. Non-homogeneity is suspected. The associated Laboratory Control Sample (LCS) met acceptance criteria, therefore no corrective action was necessary.

No other analytical or quality issues were noted.

#### **General Chemistry**

Method( 7196A: The matrix soluble spike, insoluble spike and post digestion spike (MSS/MSI/PDS) recoveries for sample 480-45973-C-2 and the matrix soluble spike, and post digestion spike (MSS/PDS) recoveries for sample 480-45973-C-3 for batch 84254 were outside of control limits. The associated laboratory control Standard reference material and laboratory control Standard reference material duplicate standard (LCSSRM/LCSDSRM) analysis data demonstrate that the analytical system was operating in control; therefore, this condition is most likely due to a matrix interference. An Oxidation Reduction Potential (ORP) test was performed for the samples and reducing conditions were found to exist.

No other analytical or quality issues were noted.

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	Mass	DEP Analytical	Protocol Certif	fication Form	
Laboratory Name:	TestAmer	ica Buffalo	Project #:	480-459	73-1
Project Location:	Qu	incy	RTN:		
This form provide	es certifications for	the following data	a set: list Laborato	ry Sample ID Number(s):	
480-45973-1[1-3]		<b>g</b>		· <b>,</b> · · · · · · · · · · · · · · · · · · ·	
Matrices:	Groundwater/Surfa	ce Water X	Soil/Sediment	Drinking Water Air	Other:
CAM Protocols	(check all that ap	ply below):			
8260 VOC	7470/7471 Hg	Mass DEP VPH	8081 Pesticides	7196 Hex Cr	Mass DEP APH
CAM II A	CAM III B	CAM IV A	CAM V B	CAM VI B 🗵	CAM IX A
8270 SVOC	6010 Metals	Mass DEP EPH	8151 Herbicides	8330 Explosives	TO-15 VOC
CAM II B	CAM III C	CAM IV B	CAM V C	CAM VIII A	CAM IX B
			9014 Total		
6010 Metals	6020 Metals	8082 PCB	Cyanide/PAC	6860 Perchlorate	
CAM III A	CAM III D	CAM V A	CAM VI A	CAM VIII B	
Affirmative	Responses to Que	stions A through I	are required for "	'Presumptive Certainty" s	tatus
Wore all say	mples received in a	condition consistent	with those describe	ed on the Chain-of-Custody,	
				d prepared/analyzed within	
method hold		imporatoro) in the ne	or aboratory, and	a proparod/analyzod within	X Yes No
		nd all associated O	C requiremente and	oified in the colocted CAM	<u>                                   </u>
protocol(s) f		no ali associated Qi	C requirements spe	cified in the selected CAM	X Yes No
	quired corrective acti mplemented for all i			ecified in the selected CAM	X Yes No
i	•	•			ines in ino
				pecified in CAM VII A,	
Data"?	surance and Quanty	Control Guidelines i	or the Acquisition a	nd Reporting of Analytical	X Yes No
	H and APH Methods	only: Was each me	athod conducted with	hout significant	
	n(s)? (Refer to the in				☐ Yes ☐ No
	TO-15 Methods only		-	•	Yes No
Word all an				onformances identified and	<del></del>
	•	•		stions A through E)?	X Yes No
				sumptive Certainty" statu	
			•		1
G Were the reprotocol(s)?	porting limits at or b	eiow ali CAM report	ing limits specified i	n the selected CAM	X Yes No1
		esumntive Certainty	" status may not ned	cessarily meet the data usab	
	s requirements descr		•	_	mey und
H Were all Q0	C performance stand	lards specified in the	e CAM protocol(s) a	chieved?	X Yes No <sup>1</sup>
I Were result	s reported for the co	mplete analyte list s	specified in the selec	cted CAM protocol(s) ?	X Yes No <sup>1</sup>
	onses must be addre				
, the undersigned,	attest under the pair	ns and penalties of p	erjury that, based up	oon my personal inquiry of t	hose responsible for
				he best of my knowledge an	
is accurate and co	mplete.				
2:	R Ma	0-	<b>5</b>	B 1 44	
Signature:	7, 0	Den	Position:	Project Ma	ınager
Printed Name:	Recky	Mason	Date:	9/24/13 1	3:27
	ectronically signed and ap		Date.	J/27/10	J
Tomi nao boon ele	Journally digitor and ap				

# **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

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Client Sample ID: WCSS-12-(0-0.25)

Lab Sample ID: 480-45973-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	67.5		0.537	0.215	mg/Kg	1	₽	6010	Total/NA
Chromium (hexavalent)	1.74		0.434	0.109	mg/Kg	1	₽	7196A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
рН	7.48		1.00	1.00	SU	1	_	9045C	Soluble
Oxidation Reduction Potential	138		0.0100	0.0100	millivolts	1		SM 2580B	Soluble

5

**Client Sample ID: WCSS-37-(0-0.25)** 

Lab Sample ID: 480-45973-2

Analyte Chromium Chromium (hexavalent)	Result 67.4 4.67	Qualifier	0.494 0.428		Unit mg/Kg mg/Kg	1	₩	Method 6010 7196A	Prep Type Total/NA Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	8.29		1.00	1.00	SU	1	_	9045C	Soluble
Oxidation Reduction Potential	62.0		0.0100	0.0100	millivolts	1		SM 2580B	Soluble

9

Client Sample ID: WCSS-42-(0-0.25)

Lab Sample ID: 480-45973-3

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	29.1	0.582	0.233	mg/Kg	1	₩	6010	Total/NA
Chromium (hexavalent)	5.71	0.424	0.106	mg/Kg	1	₽	7196A	Total/NA
Analyte	Result Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.80	1.00	1.00	SU	1	_	9045C	Soluble
Oxidation Reduction Potential	59.0	0.0100	0.0100	millivolts	1		SM 2580B	Soluble

## **Client Sample Results**

Client: Woodard & Curran Inc

Analyte

Analyte

pН

**Chromium (hexavalent)** 

**General Chemistry - Soluble** 

**Oxidation Reduction Potential** 

Project/Site: Quincy Inervale Client Sample ID: WCSS-12-(0-0.25) Lab Sample ID: 480-45973-1 Date Collected: 09/16/13 12:05 **Matrix: Solid** Date Received: 09/16/13 15:00 Percent Solids: 94.1 Method: 6010 - Metals (ICP) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac <del>\</del> 0.537 09/18/13 13:55 09/19/13 16:50 Chromium 67.5 0.215 mg/Kg **General Chemistry** Result Qualifier RL MDL Unit D Analyte Prepared Dil Fac Analyzed **Chromium (hexavalent)** 1.74 0.434 0.109 mg/Kg 09/19/13 08:29 09/20/13 14:57 **General Chemistry - Soluble** Analyte Result Qualifier RL RL Unit D Prepared Analyzed Dil Fac 1.00 SU 7.48 1.00 09/17/13 09:14 pН 0.0100 0.0100 millivolts 09/17/13 09:14 **Oxidation Reduction Potential** 138 Client Sample ID: WCSS-37-(0-0.25) Lab Sample ID: 480-45973-2 Date Collected: 09/16/13 10:20 **Matrix: Solid** Date Received: 09/16/13 15:00 Percent Solids: 93.1 Method: 6010 - Metals (ICP) Analyte Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac ₩ 09/19/13 17:02 0.494 09/18/13 13:55 Chromium 0.198 mg/Kg 67.4 **General Chemistry** Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared 0.428 0.107 mg/Kg ₽ 09/19/13 08:30 09/20/13 14:52 **Chromium (hexavalent)** 4.67 **General Chemistry - Soluble** Analyte Result Qualifier RL **RL** Unit D Prepared Analyzed Dil Fac рН 8.29 1.00 1.00 SU 09/17/13 09:24 0.0100 0.0100 millivolts 09/17/13 09:24 62.0 **Oxidation Reduction Potential** Client Sample ID: WCSS-42-(0-0.25) Lab Sample ID: 480-45973-3 Date Collected: 09/16/13 10:10 **Matrix: Solid** Date Received: 09/16/13 15:00 Percent Solids: 94.8 Method: 6010 - Metals (ICP) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ₩ 0.582 09/18/13 13:55 29.1 0.233 mg/Kg 09/19/13 17:05 Chromium **General Chemistry** 

TestAmerica Job ID: 480-45973-1

6

RL

RL

1.00

0.0100

0.424

MDL Unit

0.106

RL Unit

1.00 SU

0.0100

mg/Kg

millivolts

D

₩

D

Prepared

09/19/13 08:29

Prepared

Result Qualifier

Qualifier

5.71

Result

7.80

59.0

Dil Fac

Dil Fac

Analyzed

09/20/13 14:45

Analyzed

09/17/13 09:29

09/17/13 09:29

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample Dup

Limits

69.8 - 129.

6

Client Sample ID: Lab Control Sample

%Rec.

Limits

69.8 - 129. 6 Client Sample ID: WCSS-12-(0-0.25)

%Rec.

Limits

75 \_ 125

%Rec.

Limits

75 - 125

Client Sample ID: Method Blank

Analyzed

09/20/13 14:42

Client Sample ID: WCSS-12-(0-0.25)

%Rec

%Rec

%Rec

%Rec

Prepared

09/19/13 08:29

84

94 2

D

D

D

Ä

95.1

Prep Type: Total/NA

Prep Batch: 139756

Prep Type: Total/NA

Prep Batch: 139756

RPD

Prep Type: Total/NA Prep Batch: 139756

Prep Type: Total/NA

Prep Batch: 139756

Prep Type: Total/NA

Prep Batch: 139756

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 84042

Prep Batch: 84042

RPD

Limit

Dil Fac

RPD

Limit

30

Dil Fac

Limit

20

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-139756/1-A

**Matrix: Solid** 

Analysis Batch: 140198

MB MB

Sample Sample

Result Qualifier

Sample Sample

67.5

Result Qualifier

MB MB

<0.400

Result Qualifier

67.5

RL MDL Unit Result Qualifier D Analyte Prepared Analyzed 0.471 09/18/13 13:55 Chromium <0.471 0.188 mg/Kg 09/19/13 16:29

> Spike Added

> > 125

Spike

Added

Spike

Added

44.0

Spike

Added

45.4

125

LCDSRM LCDSRM

LCSSRM LCSSRM

MS MS

MSD MSD

88.29 F

Result Qualifier

104.5

Result Qualifier

117.9

Result Qualifier

119.0

Result Qualifier

Unit

mg/Kg

Unit

Unit

Unit

mg/Kg

mg/Kg

mg/Kg

Lab Sample ID: LCDSRM 480-139756/3-A LCDSRM

**Matrix: Solid** 

Analysis Batch: 140198

Analyte

Chromium

Lab Sample ID: LCSSRM 480-139756/2-A

**Matrix: Solid** Analysis Batch: 140198

Analyte

Chromium

Lab Sample ID: 480-45973-1 MS

**Matrix: Solid** Analysis Batch: 140198

Chromium

Chromium

Analyte

Lab Sample ID: 480-45973-1 MSD

**Matrix: Solid** 

Analysis Batch: 140198

Analyte

Lab Sample ID: MB 180-84042/1-A

**Matrix: Solid** 

**Analysis Batch: 84254** 

Analyte

Chromium (hexavalent)

Lab Sample ID: LCDSRM 180-84042/3-A LCDSRM

Method: 7196A - Chromium, Hexavalent

**Matrix: Solid** Analysis Batch: 84254

Analyte Chromium (hexavalent)

Spike Added 147

LCDSRM LCDSRM Result Qualifier 123.6

RL

0.400

MDL Unit

0.100 mg/Kg

Unit mg/Kg

%Rec

84.1

Limits 31.9 - 152.

Client Sample ID: Lab Control Sample Dup

RPD

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 7196A - Chromium,	Hexavalent (	(Continued)
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Lab Sample ID: LCSSRM 180-8404	2/2-A						Client	Sample	e ID: Lab Co		
Matrix: Solid										ype: To	
Analysis Batch: 84254			Spike	LCSSRM	LCSSRM				%Rec.	Batch:	0404
Analyte			Added		Qualifier	Unit	D	%Rec	Limits		
Chromium (hexavalent)			147	122.5		mg/Kg		83.3	31.9 - 152.		
			• • • • • • • • • • • • • • • • • • • •			99		00.0	4		
Lab Sample ID: 480-45973-2 MSI							Clie	ent Sam	ple ID: WC	SS-37-(0	)-0.25
Matrix: Solid										ype: To	
Analysis Batch: 84254										Batch:	8404
	-	Sample	Spike		MSI				%Rec.		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Chromium (hexavalent)	4.67		767	656.4		mg/Kg	₩	85	75 <sub>-</sub> 125		
Lab Sample ID: 480-45973-2 MSS							Clie	ent Sam	ple ID: WC		
Matrix: Solid										ype: To	
Analysis Batch: 84254										Batch:	8404
	-	Sample	Spike		MSS		_		%Rec.		
Analyte		Qualifier	Added		Qualifier	Unit	— <del>D</del>	%Rec	Limits		
Chromium (hexavalent)	4.67		21.3	11.76	F	mg/Kg	÷.	33	75 <sub>-</sub> 125		
Lab Sample ID: 480-45973-3 MSI							Clie	ent Sam	ple ID: WC		
Matrix: Solid										ype: To	
Analysis Batch: 84254	Comple	Comple	Cnika	Mei	MSI				Prep %Rec.	Batch:	8404
Amalusta	-	Sample	Spike Added			l lmi4	_	0/ Dag	%Rec.		
Analyte Chromium (hexavalent)	5.71	Qualifier	732	245.5	Qualifier	- Unit mg/Kg	— <u>D</u>	%Rec 33	75 <sub>-</sub> 125		
moman (nexavalent)	5.71		752	240.0	•	mg/itg	.,,	55	75 - 125		
Lab Sample ID: 480-45973-3 MSS							Clie	ent Sam	ple ID: WC		
Matrix: Solid										ype: To	
Analysis Batch: 84254										Batch:	8404
	•	Sample	Spike		MSS				%Rec.		
Analyte		Qualifier	Added		Qualifier	Unit	— <del>D</del>	%Rec	Limits		
Chromium (hexavalent)	5.71		21.4	4.726	F	mg/Kg	*	-5	75 <sub>-</sub> 125		
Lab Sample ID: 480-45973-2 DU							Clie	ent Sam	ple ID: WC	•	
Matrix: Solid									Prep T	ype: To	tal/N
Analysis Batch: 84254									Prep	Batch:	
	-	Sample		DU	DU						RP
Analyte		Qualifier			Qualifier	Unit	D			RPD	Lim
Chromium (hexavalent)	4.67			4.681		mg/Kg	₩			0.3	3
_ab Sample ID: 480-45973-3 DU							Clie	ent Sam	ple ID: WC		
Matrix: Solid										ype: To	
Analysis Batch: 84254									Prep	Batch:	
	-	Sample			DU						RP
Analyte		Qualifier			Qualifier	Unit	D			RPD	Lim
Chromium (hexavalent)	5.71			5.914		mg/Kg	₩			4	3

## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

**Client Sample ID: Lab Control Sample** 

Client Sample ID: WCSS-12-(0-0.25)

**Client Sample ID: Lab Control Sample** 

Client Sample ID: WCSS-12-(0-0.25)

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Method: 9045C - pH

Lab Sample ID: LCS 360-98282/1-A

Matrix: Solid

**Analysis Batch: 98285** 

Spike LCS LCS %Rec. Added Result Qualifier Analyte Limits Unit %Rec рН 6.00 SU 100 90 - 110 5.980

Lab Sample ID: 480-45973-1 DU

**Matrix: Solid** 

Analysis Batch: 98285

-	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
рН	7.48		7.540		SU		 0.8	10.0

Method: SM 2580B - Reduction-Oxidation (REDOX) Potential

Lab Sample ID: LCS 360-98283/1-A

**Matrix: Solid** 

Analysis Batch: 98284

		Spike	LCS	LCS				%Rec.
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits
Oxidation Reduction Potential	 	475	476.0		millivolts		100	85 - 115

Lab Sample ID: 480-45973-1 DU

**Matrix: Solid** 

Analysis Batch: 98284

	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Oxidation Reduction Potential	138		132.0		millivolts	_		4	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals** 

**Prep Batch: 139756** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Total/NA	Solid	3050B	_
480-45973-1 MS	WCSS-12-(0-0.25)	Total/NA	Solid	3050B	
480-45973-1 MSD	WCSS-12-(0-0.25)	Total/NA	Solid	3050B	
480-45973-2	WCSS-37-(0-0.25)	Total/NA	Solid	3050B	
480-45973-3	WCSS-42-(0-0.25)	Total/NA	Solid	3050B	
LCDSRM 480-139756/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-139756/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-139756/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 140198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Total/NA	Solid	6010	139756
480-45973-1 MS	WCSS-12-(0-0.25)	Total/NA	Solid	6010	139756
480-45973-1 MSD	WCSS-12-(0-0.25)	Total/NA	Solid	6010	139756
480-45973-2	WCSS-37-(0-0.25)	Total/NA	Solid	6010	139756
480-45973-3	WCSS-42-(0-0.25)	Total/NA	Solid	6010	139756
LCDSRM 480-139756/3-A LCD\$	Lab Control Sample Dup	Total/NA	Solid	6010	139756
LCSSRM 480-139756/2-A	Lab Control Sample	Total/NA	Solid	6010	139756
MB 480-139756/1-A	Method Blank	Total/NA	Solid	6010	139756

**General Chemistry** 

Prep Batch: 84042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Total/NA	Solid	3060A	<u> </u>
480-45973-2	WCSS-37-(0-0.25)	Total/NA	Solid	3060A	
480-45973-2 DU	WCSS-37-(0-0.25)	Total/NA	Solid	3060A	
480-45973-2 MSI	WCSS-37-(0-0.25)	Total/NA	Solid	3060A	
480-45973-2 MSS	WCSS-37-(0-0.25)	Total/NA	Solid	3060A	
480-45973-3	WCSS-42-(0-0.25)	Total/NA	Solid	3060A	
480-45973-3 DU	WCSS-42-(0-0.25)	Total/NA	Solid	3060A	
480-45973-3 MSI	WCSS-42-(0-0.25)	Total/NA	Solid	3060A	
480-45973-3 MSS	WCSS-42-(0-0.25)	Total/NA	Solid	3060A	
LCDSRM 180-84042/3-A LCDSF	Lab Control Sample Dup	Total/NA	Solid	3060A	
LCSSRM 180-84042/2-A	Lab Control Sample	Total/NA	Solid	3060A	
MB 180-84042/1-A	Method Blank	Total/NA	Solid	3060A	

Analysis Batch: 84254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-2	WCSS-37-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-2 DU	WCSS-37-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-2 MSI	WCSS-37-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-2 MSS	WCSS-37-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-3	WCSS-42-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-3 DU	WCSS-42-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-3 MSI	WCSS-42-(0-0.25)	Total/NA	Solid	7196A	84042
480-45973-3 MSS	WCSS-42-(0-0.25)	Total/NA	Solid	7196A	84042
LCDSRM 180-84042/3-A LCDSF	Lab Control Sample Dup	Total/NA	Solid	7196A	84042
LCSSRM 180-84042/2-A	Lab Control Sample	Total/NA	Solid	7196A	84042

TestAmerica Buffalo

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

## **General Chemistry (Continued)**

## Analysis Batch: 84254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-84042/1-A	Method Blank	Total/NA	Solid	7196A	84042

#### Leach Batch: 98282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Soluble	Solid	DI Leach	· <del></del>
480-45973-1 DU	WCSS-12-(0-0.25)	Soluble	Solid	DI Leach	
480-45973-2	WCSS-37-(0-0.25)	Soluble	Solid	DI Leach	
480-45973-3	WCSS-42-(0-0.25)	Soluble	Solid	DI Leach	
LCS 360-98282/1-A	Lab Control Sample	Soluble	Solid	DI Leach	

#### Leach Batch: 98283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Soluble	Solid	DI Leach	
480-45973-1 DU	WCSS-12-(0-0.25)	Soluble	Solid	DI Leach	
480-45973-2	WCSS-37-(0-0.25)	Soluble	Solid	DI Leach	
480-45973-3	WCSS-42-(0-0.25)	Soluble	Solid	DI Leach	
LCS 360-98283/1-A	Lab Control Sample	Soluble	Solid	DI Leach	

#### Analysis Batch: 98284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Soluble	Solid	SM 2580B	98283
480-45973-1 DU	WCSS-12-(0-0.25)	Soluble	Solid	SM 2580B	98283
480-45973-2	WCSS-37-(0-0.25)	Soluble	Solid	SM 2580B	98283
480-45973-3	WCSS-42-(0-0.25)	Soluble	Solid	SM 2580B	98283
LCS 360-98283/1-A	Lab Control Sample	Soluble	Solid	SM 2580B	98283

#### Analysis Batch: 98285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Soluble	Solid	9045C	98282
480-45973-1 DU	WCSS-12-(0-0.25)	Soluble	Solid	9045C	98282
480-45973-2	WCSS-37-(0-0.25)	Soluble	Solid	9045C	98282
480-45973-3	WCSS-42-(0-0.25)	Soluble	Solid	9045C	98282
LCS 360-98282/1-A	Lab Control Sample	Soluble	Solid	9045C	98282

#### Analysis Batch: 139842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45973-1	WCSS-12-(0-0.25)	Total/NA	Solid	Moisture	<u> </u>
480-45973-2	WCSS-37-(0-0.25)	Total/NA	Solid	Moisture	
480-45973-3	WCSS-42-(0-0.25)	Total/NA	Solid	Moisture	

TestAmerica Buffalo

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4.6

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 12:05

Date Received: 09/16/13 15:00

Client Sample ID: WCSS-12-(0-0.25)

Lab Sample ID: 480-45973-1

**Matrix: Solid** 

Percent Solids: 94.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139756	09/18/13 13:55	NMD2	TAL BUF
Total/NA	Analysis	6010		1	140198	09/19/13 16:50	LMH	TAL BUF
Total/NA	Prep	3060A			84042	09/19/13 08:29	HRA	TAL PIT
Total/NA	Analysis	7196A		1	84254	09/20/13 14:57	MTW	TAL PIT
Soluble	Leach	DI Leach			98283	09/17/13 08:10	GRB	TAL WFD
Soluble	Analysis	SM 2580B		1	98284	09/17/13 09:14	GRB	TAL WFD
Soluble	Leach	DI Leach			98282	09/17/13 08:10	GRB	TAL WFD
Soluble	Analysis	9045C		1	98285	09/17/13 09:14	GRB	TAL WFD
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-37-(0-0.25)

Date Collected: 09/16/13 10:20

Date Received: 09/16/13 15:00

Lab Sample ID: 480-45973-2

Lab Sample ID: 480-45973-3

**Matrix: Solid** 

Percent Solids: 94.8

**Matrix: Solid** Percent Solids: 93.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139756	09/18/13 13:55	NMD2	TAL BUF
Total/NA	Analysis	6010		1	140198	09/19/13 17:02	LMH	TAL BUF
Total/NA	Prep	3060A			84042	09/19/13 08:30	HRA	TAL PIT
Total/NA	Analysis	7196A		1	84254	09/20/13 14:52	MTW	TAL PIT
Soluble	Leach	DI Leach			98283	09/17/13 08:10	GRB	TAL WFD
Soluble	Analysis	SM 2580B		1	98284	09/17/13 09:24	GRB	TAL WFD
Soluble	Leach	DI Leach			98282	09/17/13 08:10	GRB	TAL WFD
Soluble	Analysis	9045C		1	98285	09/17/13 09:24	GRB	TAL WFD
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-42-(0-0.25)

Date Collected: 09/16/13 10:10

Date Received: 09/16/13 15:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			139756	09/18/13 13:55	NMD2	TAL BUF
Total/NA	Analysis	6010		1	140198	09/19/13 17:05	LMH	TAL BUF
Total/NA	Prep	3060A			84042	09/19/13 08:29	HRA	TAL PIT
Total/NA	Analysis	7196A		1	84254	09/20/13 14:45	MTW	TAL PIT
Soluble	Leach	DI Leach			98283	09/17/13 08:10	GRB	TAL WFD
Soluble	Analysis	SM 2580B		1	98284	09/17/13 09:29	GRB	TAL WFD
Soluble	Leach	DI Leach			98282	09/17/13 08:10	GRB	TAL WFD
Soluble	Analysis	9045C		1	98285	09/17/13 09:29	GRB	TAL WFD
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

TestAmerica Buffalo

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9/24/2013

#### **Lab Chronicle**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	10-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-14

#### Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-14
California	NELAP	9	4224CA	03-31-14
Connecticut	State Program	1	PH-0688	09-30-14
Florida	NELAP	4	E871008	06-30-14
Illinois	NELAP	5	002602	06-30-14
Kansas	NELAP	7	E-10350	01-31-14
L-A-B	DoD ELAP		L2314	07-16-16
Louisiana	NELAP	6	04041	06-30-13 *
New Hampshire	NELAP	1	203011	04-05-14
New Jersey	NELAP	2	PA005	06-30-14
New York	NELAP	2	11182	04-01-14
North Carolina DENR	State Program	4	434	12-31-13
Pennsylvania	NELAP	3	02-00416	04-30-14
South Carolina	State Program	4	89014	04-30-14

 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

9/24/2013

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# **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

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## Laboratory: TestAmerica Pittsburgh (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
US Fish & Wildlife	Federal		LE94312A-1	11-30-14
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	04-30-14
Virginia	NELAP	3	460189	09-14-14
West Virginia DEP	State Program	3	142	01-31-14
Wisconsin	State Program	5	998027800	08-31-14

## **Laboratory: TestAmerica Westfield**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0494	09-30-14
Massachusetts	State Program	1	M-MA014	06-30-14
New Hampshire	NELAP	1	2539	08-08-14

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## **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45973-1

Method	Method Description	Protocol	Laboratory
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL PIT
9045C	рН	SW846	TAL WFD
Moisture	Percent Moisture	EPA	TAL BUF
SM 2580B	Reduction-Oxidation (REDOX) Potential	SM	TAL WFD

#### Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

# **Sample Summary**

Matrix

Solid

Solid

Solid

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID

WCSS-12-(0-0.25)

WCSS-37-(0-0.25)

WCSS-42-(0-0.25)

Lab Sample ID

480-45973-1

480-45973-2

480-45973-3

TestAmerica Job ID: 480-45973-1

Collected	Received

09/16/13 10:10

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09/16/13 15:00

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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_



Drinking Water? Yes □ No ♥ THE LEADER IN ENVIRONMENTAL TESTING TAL-4124 (1007) Client Project Manager Chain of Custody Number 23833 Providence RI CR90 Auckrea Hovey
Telephone Number (Area Code)/Fax Number 401-273-1007, anever Eucedard curran.com Site Contact Lab Contact Analysis (Attach list if Anchiec Herry Carrier/Waybill Number more space is needed) to aven ORP/24 Chiracy-Intervale Chiracy, MA
Contract/Purchase Order/Quote No. Dia Chanium Special Instructions/ Conditions of Receipt Containers & Matrix Preservatives Sample I.D. No. and Description Date Time Sed. Soil (Containers for each sample may be combined on one line) 1205 \* Total Chromium of WCSS-12-10-025 1020 Hex Chromium to be 1010 analyzal via SW846-7196 Page X Note: Short hold 19 으 22 Possible Hazard Identification Sample Disposal (A fee may be assessed if samples are retained X Unknown ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B Return To Client Archive For \_ \_\_ Months | longer than 1 month) Disposal By Lab OC Requirements (Specify) MCP CAM mesucals required, report to MCP S-1 Standard Turn Around Time Required 24 Hours 48 Hours 7 Days 14 Days 21 Days 10 Other 5 Clay GIS Key of excel file with PDF report 1. Relinquished By 1. Received By 1500 9-16-13 9/24/2013 3. Received By 3 9# 4.4.7 Cewodell

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy











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# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-45973-1

Login Number: 45973 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-45973-1

List Source: TestAmerica Pittsburgh
List Number: 1
List Creation: 09/18/13 05:47 PM

Creator: Neri, Tom

Creator: Neri, Tom		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-45973-1

Login Number: 45973 List Source: TestAmerica Westfield
List Number: 1 List Creation: 09/18/13 02:23 PM

Creator: Emerich, Rich W

Question	Answer Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <a href="fig8">&lt;6mm (1/4").</a>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-45969-2 Client Project/Site: Quincy Inervale

#### For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

Masen

Authorized for release by: 9/27/2013 4:39:24 PM

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

#### **Qualifiers**

## GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## **Glossary**

TEF

TEQ

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

#### **Case Narrative**

Client: Woodard & Curran Inc

TestAmerica Job ID: 480-45969-2

Project/Site: Quincy Inervale

Job ID: 480-45969-2

Laboratory: TestAmerica Buffalo

Narrative

#### Receipt

The samples were received on 9/18/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.1° C, 3.6° C and 3.7° C.

#### GC Semi VOA

Method 8082: The following samples appear to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: WCSS-29-(0-0.25) (480-45969-18), WCSS-32-(0-0.25) (480-45969-21), WCSS-33-(0-0.25) (480-45969-22), WCSS-34-(0-0.25) (480-45969-23), WCSS-35-(0-0.25) (480-45969-24), WCSS-36-(0-0.25) (480-45969-25), WCSS-44-(0-0.25) (480-45969-31), WCSS-918-(0-0.25) (480-45969-36), WCSS-935-(0-0.25) (480-45969-39). The samples have been quantified and reported as a mixture of Aroclors 1254 and 1260. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method 8082: The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: WCSS-40-(0-0.25) (480-45969-28). Lot # S65830

Method 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: WCSS-11-(0-0.25) (480-45969-1), WCSS-18-(0-0.25) (480-45969-6), WCSS-24-(0-0.25) (480-45969-14), WCSS-26-(0-0.25) (480-45969-15), WCSS-27-(0-0.25) (480-45969-16), WCSS-44-(0-0.25) (480-45969-31), WCSS-918-(0-0.25) (480-45969-36), WCSS-935-(0-0.25) (480-45969-39). The samples have been quantified and reported as a mixture of Aroclors1254 and 1260. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method 8082: The following sample was diluted due to color: WCSS-17-(0-0.25) (480-45969-7). Elevated reporting limits (RL) are provided.

Method 8082: One surrogate failed high for the LCS on the confirmation column. All LCS/LCSD criteria passed. No re-extract was required.

No other analytical or quality issues were noted.

#### **General Chemistry**

No analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

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MassDEP Analytical Protocol Certification Form								
atory Name:	TestAn	nerica Buffalo		Project #:		480-4596	9-2	
ct Location:	(	Quincy		RTN:				
orm provide	s certifications	for the following	data set: li	st Laborato	ry Sample ID Nur	nber(s):		
5969-2[1-2,6	-19,21-25,28-32,	,36-37,39]						
es:	Groundwater/Su	urface Water	X Soil/Se	ediment 🗌	Drinking Water	Air	Oth	er:
Protocols	(check all that	apply below):						
VOC	7470/7471 Hg	Mass DEP VP	H 8081 F	Pesticides	7196 Hex Cr		Mass DEF	APH
IA 🗆	CAM III B	☐ CAM IV A			CAM VI B		CAM IX A	
					I	1		С
IB 📙	CAM III C	CAM IV B			CAM VIII A	]	CAM IX B	
Metals	6020 Metals	8082 PCB			6860 Perchlorate			
II A	CAM III D	CAM V A		/I A 🔲	CAM VIII B			
Affirmative	Responses to C	Questions A throu	igh F are re	equired for '	Presumptive Cer	tainty" st	atus	
Were all san	nples received in	a condition consi	stent with th	ose describe	ed on the Chain-of-	Custodv.		
properly pres	served (including							
							X Yes	No
		s) and all associate	ed QC requi	rements spe	cified in the selecte	ed CAM	XYes	☐ No
		•	•	•		ted CAM	X Yes	☐ No
Does the lab	oratory report co	omply with all the r	eporting req	uirements sp	pecified in CAM VII	ΙΑ,		
	urance and Qual	lity Control Guideli	nes for the A	Acquisition a	nd Reporting of An	alytical	X	□ N-
	I and ADU Math	ods only: Was oas	h mothod co	anducted wit	hout cignificant		Yes Tes	<u> </u>
							Yes	No
				_	·	?	Yes	No
	a laboratory nar	rative (including al		nses to Que	stions A through E	\?	X   Waa	
		<u> </u>		1.6 "5				☐ No
	ses to Question	s G, H and I belo			sumptive Certain	ty" status		□ No
Were the reprotocol(s)?	ses to Question porting limits at c	or below all CAM re	eporting limi	ts specified i	sumptive Certain  n the selected CAN	ty" status VI	X	□ No¹
Were the reprotocol(s)?	ses to Question porting limits at o	or below all CAM re	eporting limi	ts specified i	sumptive Certain  In the selected CAP  Researily meet the company to the company	ty" status VI	X	
Were the reprotocol(s)? <u>User Note:</u> Eentativeness	ses to Question corting limits at co lata that achieve requirements de	or below all CAM re "Presumptive Certescribed in 310 CMF	eporting liminalist in the second sec	ts specified i may not ned )(k) and WCS	sumptive Certain  n the selected CAI  cessarily meet the co-07-350	ty" status VI	X Yes	□ No¹
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Were the reprotocol(s)?  User Note: Lentativeness  Were all QC  Were results	porting limits at conting limi	"Presumptive Certescribed in 310 CMF andards specified complete analyte	eporting liminal status R 40. 1056 (2) in the CAM	ts specified is may not need (k) and WCS protocol(s) and in the select	sumptive Certain In the selected CAP Essarily meet the control Control	ty" status M data usabil	X Yes	□ No¹
Were the reprotocol(s)?  User Note: Lentativeness  Were all QC  Were results  egative responses	porting limits at contact that achieve requirements despersions or reported for the consess must be accommodated.	"Presumptive Certescribed in 310 CMI andards specified a complete analyte ddressed in an atta	eporting liminality" status R 40. 1056 (2) in the CAM list specified ached labora	ts specified in the selection of the sel	n the selected CAN cessarily meet the co-07-350 chieved? cted CAM protocole e.	ty" status M data usabil (s) ?	X Yes ity and Yes X Yes	No¹  X No¹  No¹
Were the reprotocol(s)?  User Note: Lentativeness  Were all QC  Were results  egative respondersigned,	porting limits at contract that achieve requirements despersions performance states reported for the conses must be actest under the passes to the contract that achieves actes to the contract that achieves the passes to the passes to the passes that actes to the passe	"Presumptive Certescribed in 310 CMF andards specified complete analyte	eporting liminality" status R 40. 1056 (2) in the CAM list specified ached laborate of perjury to the control of the control o	ts specified in the selection of the sel	sumptive Certain In the selected CAP Ressarily meet the co-07-350 Chieved? Cted CAM protocole e. Con my personal in	ty" status  data usabil  (s) ?	X Yes ity and Yes X Yes	No¹  X No¹  No¹
Were the reprotocol(s)?  User Note: Lentativeness  Were all QC  Were results  egative respondersigned,	porting limits at contract that achieve requirements desperience states reported for the conses must be actest under the praction, the mater	"Presumptive Certescribed in 310 CMI andards specified a complete analyte ddressed in an attapains and penalties	eporting liminality" status R 40. 1056 (2) in the CAM list specified ached laborate of perjury to the control of the control o	ts specified in the selection of the sel	sumptive Certain In the selected CAP Ressarily meet the co-07-350 Chieved? Cted CAM protocole e. Con my personal in	ty" status  data usabil  (s) ?	X Yes ity and Yes X Yes	No¹  X No¹  No¹
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	ct Location:  prm provide i969-2[1-2,6 es:	atory Name: TestAn ct Location:  prom provides certifications (969-2[1-2,6-19,21-25,28-32, 9s: Groundwater/Steps: Groundwater/S	TestAmerica Buffalo  Ct Location:  Quincy  Corm provides certifications for the following  G969-2[1-2,6-19,21-25,28-32,36-37,39]  Ges:  Groundwater/Surface Water  Protocols (check all that apply below):  COC  7470/7471 Hg  Mass DEP VP  AND CAM III B  CAM IV A  CAM IV B  Metals  GO20 Metals  GO30 Metals	Action Name: TestAmerica Buffalo  Ct Location: Quincy  Corm provides certifications for the following data set: It  Caption Set: Groundwater/Surface Water Soil/Set  Corm provides certifications for the following data set: It  Caption Set: Groundwater/Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater/Surface Water Soil/Set  Coroundwater/Surface Water Soil/Set  Coroundwater/Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwater Surface Water Soil/Set  Coroundwa	Attory Name: TestAmerica Buffalo Project #:  Ct Location: Quincy RTN:  Comprovides certifications for the following data set: list Laborators  Cigo9-2[1-2,6-19,21-25,28-32,36-37,39]  Ces: Groundwater/Surface Water X Soil/Sediment Protocols (check all that apply below):  CO 7470/7471 Hg Mass DEP VPH 8081 Pesticides  CAM V B CAM V B CAM V B CAM V C GAM V B CAM V C GAM V B CAM V C GAM V B CAM V C GAM V B CAM V C GAM V B CAM V C GAM V B CAM V C GAM V B CAM V C GAM V B C	TestAmerica Buffalo  Project #:  ct Location:  Quincy  RTN:  crm provides certifications for the following data set: list Laboratory Sample ID Nur 1969-2[1-2,6-19,21-25,28-32,36-37,39]  Res:  Groundwater/Surface Water  Notice Soli/Sediment  Drinking Water  Protocols (check all that apply below):  CAM VB  CAM VB  CAM VB  CAM VIB  CAM V	TestAmerica Buffalo  Project #: 480-4596  Det Location:  Quincy  RTN:  Deep provides certifications for the following data set: list Laboratory Sample ID Number(s):  1969-2[1-2,6-19,21-25,28-32,36-37,39]  1989:  Groundwater/Surface Water  Soil/Sediment  Drinking Water  Air  Protocols (check all that apply below):  1/OC  7470/7471 Hg  Mass DEP VPH  8081 Pesticides  7196 Hex Cr  CAM VI B  CAM VI B  SONOC  6010 Metals  Mass DEP EPH  8151 Herbicides  8330 Explosives  I B  CAM III C  CAM IV B  CAM V C  CAM VIII A  Metals  6020 Metals  8082 PCB  Cyanide/PAC  6860 Perchlorate  II A  CAM VIII D  CAM VIII D  CAM VIII D  CAM VIII D  Affirmative Responses to Questions A through F are required for "Presumptive Certainty" steems of the condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.  Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?  Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?  Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?  a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).  b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?  Were all applicable CAM protocol QC and performance standard non-conformances identified and	TestAmerica Buffalo  Project #: 480-45969-2  atory Name:

2

TestAmerica Job ID: 480-45969-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-11-(0-0.25) Lab Sample ID: 480-45969-1 Result Qualifier Dil Fac D Method MDL Unit Analyte RL Prep Type 20 ☆ PCB-1260 8082 3.77 0.727 0.374 mg/Kg Total/NA Client Sample ID: WCSS-13-(0-0.25) Lab Sample ID: 480-45969-2 Result Qualifier RL MDL Unit Dil Fac D Method Prep Type PCB-1260 1.13 0.0746 0.0384 mg/Kg 2 ₩ 8082 Total/NA Client Sample ID: WCSS-18-(0-0.25) Lab Sample ID: 480-45969-6 Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method Prep Type PCB-1260 1.40 0.181 0.0931 mg/Kg 5 ₩ 8082 Total/NA Client Sample ID: WCSS-17-(0-0.25) Lab Sample ID: 480-45969-7 No Detections. Client Sample ID: WCSS-19-(0-0.25) Lab Sample ID: 480-45969-8 Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type 0.177 # PCB-1242 0.100 0.0699 mg/Kg 5 8082 Total/NA PCB-1260 0.529 5 ⇔ 8082 Total/NA 0.177 0.0914 mg/Kg Client Sample ID: WCSS-20-(0-0.25) Lab Sample ID: 480-45969-9 Result Qualifier MDL Unit Method RL Prep Type 0.997 ₩ 8082 PCB-1260 0.189 0.0971 mg/Kg Total/NA Client Sample ID: WCSS-21-(0-0.25) Lab Sample ID: 480-45969-10 Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method **Prep Type** PCB-1260 2.03 0.171 5 ₩ 8082 Total/NA 0.0883 mg/Kg Client Sample ID: WCSS-22-(0-0.25) Lab Sample ID: 480-45969-11 Dil Fac D Analyte Result Qualifier RL MDL Unit Method Prep Type ₩ 8082 PCB-1260 6.39 0.705 0.363 mg/Kg 20 Total/NA Client Sample ID: WCSS-23-(0-0.25) Lab Sample ID: 480-45969-12 Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type ₩ 8082 PCB-1260 5.29 0.350 0.180 mg/Kg Total/NA Client Sample ID: WCSS-25-(0-0.25) Lab Sample ID: 480-45969-13 Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type PCB-1254 164 20.2 ₩ 8082 500 Total/NA 10.4 mg/Kg Client Sample ID: WCSS-24-(0-0.25) Lab Sample ID: 480-45969-14 Dil Fac D Method Analyte Result Qualifier RLMDL Unit Prep Type ₩ PCB-1260 5.76 0.734 0.378 mg/Kg 20 8082 Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-15

Client Sample ID: WCSS	-26-(0-0.25)					Lab Sa	mple ID:	480-45969-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	0.287		0.0349	0.0180	mg/Kg	1 🌣 8	082	Total/NA
lient Sample ID: WCSS	-27-(0-0.25)					Lab Sa	mple ID:	480-45969-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	0.813		0.0744	0.0383	mg/Kg	2 🛱 8	082	Total/NA
lient Sample ID: WCSS	-28-(0-0.25)					Lab Sa	mple ID:	480-45969-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	0.133		0.0698	0.0360	mg/Kg	2 🌣 8	082	Total/NA
Client Sample ID: WCSS	-29-(0-0.25)					Lab Sa	mple ID:	480-45969-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	13.8		1.77	0.912	mg/Kg	50 🌣 8	082	Total/NA
Client Sample ID: WCSS	-30-(0-0.25)					Lab Sa	mple ID:	480-45969-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1254	0.483		0.357	0.184	mg/Kg	10 🌣 8	082	Total/NA
Client Sample ID: WCSS	-32-(0-0.25)					Lab Sa	mple ID:	480-45969-2
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	0.309		0.0352	0.0181	mg/Kg	1 👨 8	082	Total/NA
Client Sample ID: WCSS	-33-(0-0.25)					Lab Sa	mple ID:	480-45969-2
- Analyte	Result	Qualifier	RL	MDL	Unit		ethod	Prep Type
PCB-1260	5.03		0.390	0.201	mg/Kg	10 🌣 8	082	Total/NA
Client Sample ID: WCSS	-34-(0-0.25)					Lab Sa	mple ID:	480-45969-2
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	5.31		0.391	0.202	mg/Kg	10 🌣 8	082	Total/NA
Client Sample ID: WCSS	-35-(0-0.25)					Lab Sa	mple ID:	480-45969-2
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	1.41		0.176	0.0907	mg/Kg	5 🛱 8	082	Total/NA
Client Sample ID: WCSS	-36-(0-0.25)					Lab Sa	mple ID:	480-45969-2
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D M	ethod	Prep Type
PCB-1260	3.30		0.361	0.186	mg/Kg	10 🌣 8	082	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-28

Lab Sample ID: 480-45969-36

Client Sample ID: WCSS-40-(0-0.25)	(Continued)		Lab	Sample ID:	480-45969-28

Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type 10 ☆ PCB-1260 8082 3.05 0.347 0.179 mg/Kg Total/NA

#### Client Sample ID: WCSS-41-(0-0.25) Lab Sample ID: 480-45969-29

MDL Unit Dil Fac D Method Analyte Result Qualifier RL **Prep Type** PCB-1260 33.4 3.68 1.90 mg/Kg 100 🛱 8082 Total/NA

#### Client Sample ID: WCSS-43-(0-0.25) Lab Sample ID: 480-45969-30

Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type PCB-1260 173 16.7 8.62 mg/Kg 500 🌣 8082 Total/NA

#### Client Sample ID: WCSS-44-(0-0.25) Lab Sample ID: 480-45969-31

Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type ₩ PCB-1242 1.74 0.670 0.264 mg/Kg 20 8082 Total/NA PCB-1254 8.32 0.670 0.345 mg/Kg 20 🌣 8082 Total/NA

#### Client Sample ID: WCSS-45-(0-0.25) Lab Sample ID: 480-45969-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.189	J	0.375	0.148	mg/Kg	 10	₩	8082	Total/NA
PCB-1260	5.62		0.375	0.193	mg/Kg	10	₽	8082	Total/NA

#### Client Sample ID: WCSS-918-(0-0.25)

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
PCB-1242	0.241 J	0.370	0.146 mg/Kg	10 🌣	8082	Total/NA
PCB-1260	2.25	0.370	0.191 mg/Kg	10 🌣	8082	Total/NA

#### Client Sample ID: WCEB-27-(0-0.25) Lab Sample ID: 480-45969-37

No Detections.

#### Client Sample ID: WCSS-935-(0-0.25) Lab Sample ID: 480-45969-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.138	J	0.174	0.0685	mg/Kg	5	<del>\\</del>	8082	Total/NA
PCB-1260	1.27		0.174	0.0895	mg/Kg	5	₽	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Lab Sample ID: 480-45969-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-11-(0-0.25)

Date Collected: 09/16/13 12:00 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 90.3

Method: 8082 - Polychlorina	ted Biphenyls (GC	ECD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.727		0.727	0.463	mg/Kg	₩	09/20/13 10:20	09/24/13 03:33	20
PCB-1221	<0.727		0.727	0.352	mg/Kg	₽	09/20/13 10:20	09/24/13 03:33	20
PCB-1232	<0.727		0.727	0.308	mg/Kg	₽	09/20/13 10:20	09/24/13 03:33	20
PCB-1242	<0.727		0.727	0.286	mg/Kg	₽	09/20/13 10:20	09/24/13 03:33	20
PCB-1248	<0.727		0.727	0.374	mg/Kg	₽	09/20/13 10:20	09/24/13 03:33	20
PCB-1254	<0.727		0.727	0.374	mg/Kg	₽	09/20/13 10:20	09/24/13 03:33	20
PCB-1260	3.77		0.727	0.374	mg/Kg	\$	09/20/13 10:20	09/24/13 03:33	20
PCB-1262	<0.727		0.727	0.595	mg/Kg	₽	09/20/13 10:20	09/24/13 03:33	20
PCB-1268	<0.727		0.727	0.308	mg/Kg	₽	09/20/13 10:20	09/24/13 03:33	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 10:20	09/24/13 03:33	20
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 10:20	09/24/13 03:33	20
DCB Decachlorobiphenyl	406	X	30 - 150				09/20/13 10:20	09/24/13 03:33	20
DCB Decachlorobiphenyl	287	X	30 - 150				09/20/13 10:20	09/24/13 03:33	20

Client Sample ID: WCSS-13-(0-0.25)

Lab Sample ID: 480-45969-2 Date Collected: 09/16/13 11:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 87.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0746		0.0746	0.0475	mg/Kg	*	09/20/13 10:20	09/24/13 03:49	2
PCB-1221	< 0.0746		0.0746	0.0362	mg/Kg	₽	09/20/13 10:20	09/24/13 03:49	2
PCB-1232	<0.0746		0.0746	0.0316	mg/Kg	₩	09/20/13 10:20	09/24/13 03:49	2
PCB-1242	<0.0746		0.0746	0.0294	mg/Kg	₽	09/20/13 10:20	09/24/13 03:49	2
PCB-1248	< 0.0746		0.0746	0.0384	mg/Kg	₽	09/20/13 10:20	09/24/13 03:49	2
PCB-1254	< 0.0746		0.0746	0.0384	mg/Kg	₽	09/20/13 10:20	09/24/13 03:49	2
PCB-1260	1.13		0.0746	0.0384	mg/Kg	*	09/20/13 10:20	09/24/13 03:49	2
PCB-1262	<0.0746		0.0746	0.0610	mg/Kg	₽	09/20/13 10:20	09/24/13 03:49	2
PCB-1268	<0.0746		0.0746	0.0316	mg/Kg	₩	09/20/13 10:20	09/24/13 03:49	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		30 - 150				09/20/13 10:20	09/24/13 03:49	2
Tetrachloro-m-xylene	75		30 - 150				09/20/13 10:20	09/24/13 03:49	2
DCB Decachlorobiphenyl	76		30 - 150				09/20/13 10:20	09/24/13 03:49	2
DCB Decachlorobiphenyl	73		30 - 150				09/20/13 10:20	09/24/13 03:49	2

Client Sample ID: WCSS-18-(0-0.25)

Lab Sample ID: 480-45969-6 Date Collected: 09/16/13 11:00 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 91.7

Method: 8082 - Polychlori	nated Biphenyls (GC/ECD)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.181	0.181	0.115	mg/Kg	\$	09/20/13 10:20	09/24/13 04:04	5
PCB-1221	<0.181	0.181	0.0876	mg/Kg	₽	09/20/13 10:20	09/24/13 04:04	5
PCB-1232	<0.181	0.181	0.0767	mg/Kg	₽	09/20/13 10:20	09/24/13 04:04	5
PCB-1242	<0.181	0.181	0.0712	mg/Kg	₽	09/20/13 10:20	09/24/13 04:04	5
PCB-1248	<0.181	0.181	0.0931	mg/Kg	₽	09/20/13 10:20	09/24/13 04:04	5
PCB-1254	<0.181	0.181	0.0931	mg/Kg	☼	09/20/13 10:20	09/24/13 04:04	5

TestAmerica Buffalo

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## **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

Client Sample ID: WCSS-18-(0-0.25)

Lab Sample ID: 480-45969-6 Date Collected: 09/16/13 11:00 Matrix: Solid Date Received: 09/18/13 01:30

Percent Solids: 91.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	1.40		0.181	0.0931	mg/Kg	₩	09/20/13 10:20	09/24/13 04:04	5
PCB-1262	<0.181		0.181	0.148	mg/Kg	₽	09/20/13 10:20	09/24/13 04:04	5
PCB-1268	<0.181		0.181	0.0767	mg/Kg	₽	09/20/13 10:20	09/24/13 04:04	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		30 - 150				09/20/13 10:20	09/24/13 04:04	5
Tetrachloro-m-xylene	91		30 - 150				09/20/13 10:20	09/24/13 04:04	5
DCB Decachlorobiphenyl	168	Χ	30 - 150				09/20/13 10:20	09/24/13 04:04	5
DCB Decachlorobiphenvl	145		30 - 150				09/20/13 10:20	09/24/13 04:04	

Client Sample ID: WCSS-17-(0-0.25) Lab Sample ID: 480-45969-7

Date Collected: 09/16/13 12:25 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 89.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.185		0.185	0.118	mg/Kg	₽	09/20/13 10:20	09/24/13 04:32	5
PCB-1221	<0.185		0.185	0.0896	mg/Kg	₽	09/20/13 10:20	09/24/13 04:32	5
PCB-1232	<0.185		0.185	0.0784	mg/Kg	₩	09/20/13 10:20	09/24/13 04:32	5
PCB-1242	<0.185		0.185	0.0728	mg/Kg	₽	09/20/13 10:20	09/24/13 04:32	5
PCB-1248	<0.185		0.185	0.0952	mg/Kg	₽	09/20/13 10:20	09/24/13 04:32	5
PCB-1254	<0.185		0.185	0.0952	mg/Kg	₩	09/20/13 10:20	09/24/13 04:32	5
PCB-1260	<0.185		0.185	0.0952	mg/Kg	₽	09/20/13 10:20	09/24/13 04:32	5
PCB-1262	<0.185		0.185	0.151	mg/Kg	₽	09/20/13 10:20	09/24/13 04:32	5
PCB-1268	<0.185		0.185	0.0784	mg/Kg	₽	09/20/13 10:20	09/24/13 04:32	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		30 - 150				09/20/13 10:20	09/24/13 04:32	5
Tetrachloro-m-xylene	87		30 - 150				09/20/13 10:20	09/24/13 04:32	5
DCB Decachlorobiphenyl	107		30 - 150				09/20/13 10:20	09/24/13 04:32	5
DCB Decachlorobiphenyl	53		30 - 150				09/20/13 10:20	09/24/13 04:32	5

Client Sample ID: WCSS-19-(0-0.25) Lab Sample ID: 480-45969-8

Date Collected: 09/16/13 12:35 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.0

Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.177		0.177	0.113	mg/Kg	<del>\</del>	09/20/13 10:20	09/24/13 04:48	5
PCB-1221	<0.177		0.177	0.0860	mg/Kg	₽	09/20/13 10:20	09/24/13 04:48	5
PCB-1232	<0.177		0.177	0.0753	mg/Kg	₽	09/20/13 10:20	09/24/13 04:48	5
PCB-1242	0.100	J	0.177	0.0699	mg/Kg	*	09/20/13 10:20	09/24/13 04:48	5
PCB-1248	<0.177		0.177	0.0914	mg/Kg	₩	09/20/13 10:20	09/24/13 04:48	5
PCB-1254	<0.177		0.177	0.0914	mg/Kg	₩	09/20/13 10:20	09/24/13 04:48	5
PCB-1260	0.529		0.177	0.0914	mg/Kg	*	09/20/13 10:20	09/24/13 04:48	5
PCB-1262	<0.177		0.177	0.145	mg/Kg	₩	09/20/13 10:20	09/24/13 04:48	5
PCB-1268	<0.177		0.177	0.0753	mg/Kg	₩	09/20/13 10:20	09/24/13 04:48	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		30 - 150				09/20/13 10:20	09/24/13 04:48	5
Tetrachloro-m-xylene	99		30 - 150				09/20/13 10:20	09/24/13 04:48	5

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-19-(0-0.25)

Date Collected: 09/16/13 12:35 Date Received: 09/18/13 01:30 Lab Sample ID: 480-45969-8 Matrix: Solid

TestAmerica Job ID: 480-45969-2

Percent Solids: 94.0

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	107		30 - 150	09/20/13 10:20	09/24/13 04:48	5
DCB Decachlorobiphenyl	113		30 - 150	09/20/13 10:20	09/24/13 04:48	5

Client Sample ID: WCSS-20-(0-0.25)

Lab Sample ID: 480-45969-9

 Date Collected: 09/16/13 12:45
 Matrix: Solid

 Date Received: 09/18/13 01:30
 Percent Solids: 88.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.189		0.189	0.120	mg/Kg	<del>\</del>	09/20/13 10:20	09/24/13 05:03	5
PCB-1221	<0.189		0.189	0.0914	mg/Kg	₩	09/20/13 10:20	09/24/13 05:03	5
PCB-1232	<0.189		0.189	0.0800	mg/Kg	₩	09/20/13 10:20	09/24/13 05:03	5
PCB-1242	<0.189		0.189	0.0743	mg/Kg	₽	09/20/13 10:20	09/24/13 05:03	5
PCB-1248	<0.189		0.189	0.0971	mg/Kg	₩	09/20/13 10:20	09/24/13 05:03	5
PCB-1254	<0.189		0.189	0.0971	mg/Kg	₩	09/20/13 10:20	09/24/13 05:03	5
PCB-1260	0.997		0.189	0.0971	mg/Kg	₽	09/20/13 10:20	09/24/13 05:03	5
PCB-1262	<0.189		0.189	0.154	mg/Kg	₩	09/20/13 10:20	09/24/13 05:03	5
PCB-1268	<0.189		0.189	0.0800	mg/Kg	₩	09/20/13 10:20	09/24/13 05:03	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	101		30 - 150				09/20/13 10:20	09/24/13 05:03	5
Tetrachloro-m-xylene	103		30 - 150				09/20/13 10:20	09/24/13 05:03	5
DCB Decachlorobiphenyl	405	X	30 - 150				09/20/13 10:20	09/24/13 05:03	5
DCB Decachlorobiphenyl	146		30 - 150				09/20/13 10:20	09/24/13 05:03	

Client Sample ID: WCSS-21-(0-0.25)

Lab Sample ID: 480-45969-10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.171		0.171	0.109	mg/Kg	₩	09/20/13 10:20	09/24/13 05:18	5
PCB-1221	<0.171		0.171	0.0831	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
PCB-1232	<0.171		0.171	0.0727	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
PCB-1242	<0.171		0.171	0.0675	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
PCB-1248	<0.171		0.171	0.0883	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
PCB-1254	<0.171		0.171	0.0883	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
PCB-1260	2.03		0.171	0.0883	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
PCB-1262	<0.171		0.171	0.140	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
PCB-1268	<0.171		0.171	0.0727	mg/Kg	₽	09/20/13 10:20	09/24/13 05:18	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		30 - 150				09/20/13 10:20	09/24/13 05:18	5
Tetrachloro-m-xylene	94		30 - 150				09/20/13 10:20	09/24/13 05:18	5
DCB Decachlorobiphenyl	137		30 _ 150				09/20/13 10:20	09/24/13 05:18	5
DCB Decachlorobiphenyl	83		30 - 150				09/20/13 10:20	09/24/13 05:18	5

Lab Sample ID: 480-45969-12

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-22-(0-0.25)

Lab Sample ID: 480-45969-11 Date Collected: 09/16/13 10:45 Matrix: Solid

Date Received: 09/18/13 01:30 Percent Solids: 94.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.705		0.705	0.449	mg/Kg	₩	09/20/13 10:20	09/24/13 16:01	20
PCB-1221	<0.705		0.705	0.342	mg/Kg	₽	09/20/13 10:20	09/24/13 16:01	20
PCB-1232	<0.705		0.705	0.299	mg/Kg	₽	09/20/13 10:20	09/24/13 16:01	20
PCB-1242	<0.705		0.705	0.278	mg/Kg	₽	09/20/13 10:20	09/24/13 16:01	20
PCB-1248	<0.705		0.705	0.363	mg/Kg	₩	09/20/13 10:20	09/24/13 16:01	20
PCB-1254	<0.705		0.705	0.363	mg/Kg	₽	09/20/13 10:20	09/24/13 16:01	20
PCB-1260	6.39		0.705	0.363	mg/Kg	<b>\$</b>	09/20/13 10:20	09/24/13 16:01	20
PCB-1262	<0.705		0.705	0.577	mg/Kg	₽	09/20/13 10:20	09/24/13 16:01	20
PCB-1268	<0.705		0.705	0.299	mg/Kg	₽	09/20/13 10:20	09/24/13 16:01	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/20/13 10:20	09/24/13 16:01	20
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 10:20	09/24/13 16:01	20
DCB Decachlorobiphenyl	0	X	30 - 150				09/20/13 10:20	09/24/13 16:01	20
DCB Decachlorobiphenyl	0	X	30 - 150				09/20/13 10:20	09/24/13 16:01	20

Client Sample ID: WCSS-23-(0-0.25)

Date Collected: 09/16/13 13:10 Matrix: Solid

Date Received: 09/18/13 01:30 Percent Solids: 94.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.350		0.350	0.223	mg/Kg	₩	09/20/13 10:20	09/24/13 06:19	10
PCB-1221	<0.350		0.350	0.170	mg/Kg	₽	09/20/13 10:20	09/24/13 06:19	10
PCB-1232	<0.350		0.350	0.149	mg/Kg	₽	09/20/13 10:20	09/24/13 06:19	10
PCB-1242	<0.350		0.350	0.138	mg/Kg	₽	09/20/13 10:20	09/24/13 06:19	10
PCB-1248	<0.350		0.350	0.180	mg/Kg	₩	09/20/13 10:20	09/24/13 06:19	10
PCB-1254	<0.350		0.350	0.180	mg/Kg	₩	09/20/13 10:20	09/24/13 06:19	10
PCB-1260	5.29		0.350	0.180	mg/Kg	*	09/20/13 10:20	09/24/13 06:19	10
PCB-1262	<0.350		0.350	0.286	mg/Kg	₩	09/20/13 10:20	09/24/13 06:19	10
PCB-1268	<0.350		0.350	0.149	mg/Kg	₩	09/20/13 10:20	09/24/13 06:19	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/20/13 10:20	09/24/13 06:19	10
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 10:20	09/24/13 06:19	10
DCB Decachlorobiphenyl	237	X	30 - 150				09/20/13 10:20	09/24/13 06:19	10
DCB Decachlorobiphenyl	109		30 - 150				09/20/13 10:20	09/24/13 06:19	10

Client Sample ID: WCSS-25-(0-0.25) Lab Sample ID: 480-45969-13

Date Collected: 09/16/13 13:35 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 82.2

Method: 8082 - Polychlorina	ated Biphenyls (GC/	ECD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<20.2		20.2	12.8	mg/Kg	<del>-</del>	09/20/13 10:20	09/24/13 16:16	500
PCB-1221	<20.2		20.2	9.78	mg/Kg	₽	09/20/13 10:20	09/24/13 16:16	500
PCB-1232	<20.2		20.2	8.56	mg/Kg	₽	09/20/13 10:20	09/24/13 16:16	500
PCB-1242	<20.2		20.2	7.95	mg/Kg	₩	09/20/13 10:20	09/24/13 16:16	500
PCB-1248	<20.2		20.2	10.4	mg/Kg	₩	09/20/13 10:20	09/24/13 16:16	500
PCB-1254	164		20.2	10.4	mg/Kg	₽	09/20/13 10:20	09/24/13 16:16	500

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## **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 13:35

DCB Decachlorobiphenyl

DCB Decachlorobiphenyl

Client Sample ID: WCSS-25-(0-0.25)

TestAmerica Job ID: 480-45969-2

Lab Sample ID: 480-45969-13

09/20/13 10:20

09/20/13 10:20 09/24/13 16:16

Matrix: Solid

09/24/13 16:16

Percent Solids: 82.2

0 X

0 X

Method: 8082 - Polychlorin	ated Biphenyls (GC/	ECD) (Cont	inued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	<20.2		20.2	10.4	mg/Kg	<u></u>	09/20/13 10:20	09/24/13 16:16	500
PCB-1262	<20.2		20.2	16.5	mg/Kg	₽	09/20/13 10:20	09/24/13 16:16	500
PCB-1268	<20.2		20.2	8.56	mg/Kg	₽	09/20/13 10:20	09/24/13 16:16	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/20/13 10:20	09/24/13 16:16	500
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 10:20	09/24/13 16:16	500

30 - 150

30 - 150

Client Sample ID: WCSS-24-(0-0.25) Lab Sample ID: 480-45969-14

Date Collected: 09/16/13 12:55 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 89.1

Method: 8082 - Polychlorinated Biphenyls (GC/ECD	ated Biphenyls	Method: 8082 - Polychlorinated Biphenyls	CD)
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Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.734		0.734	0.467	mg/Kg	₽	09/20/13 10:20	09/24/13 06:49	20
PCB-1221	<0.734		0.734	0.356	mg/Kg	₽	09/20/13 10:20	09/24/13 06:49	20
PCB-1232	<0.734		0.734	0.311	mg/Kg	₽	09/20/13 10:20	09/24/13 06:49	20
PCB-1242	<0.734		0.734	0.289	mg/Kg	\$	09/20/13 10:20	09/24/13 06:49	20
PCB-1248	<0.734		0.734	0.378	mg/Kg	₽	09/20/13 10:20	09/24/13 06:49	20
PCB-1254	<0.734		0.734	0.378	mg/Kg	₽	09/20/13 10:20	09/24/13 06:49	20
PCB-1260	5.76		0.734	0.378	mg/Kg	\$	09/20/13 10:20	09/24/13 06:49	20
PCB-1262	<0.734		0.734	0.600	mg/Kg	₽	09/20/13 10:20	09/24/13 06:49	20
PCB-1268	<0.734		0.734	0.311	mg/Kg	☼	09/20/13 10:20	09/24/13 06:49	20

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150		09/20/13 10:20	09/24/13 06:49	20
Tetrachloro-m-xylene	0	X	30 - 150		09/20/13 10:20	09/24/13 06:49	20
DCB Decachlorobiphenyl	336	X	30 - 150		09/20/13 10:20	09/24/13 06:49	20
DCB Decachlorobiphenyl	298	X	30 - 150	(	09/20/13 10:20	09/24/13 06:49	20

Client Sample ID: WCSS-26-(0-0.25) Lab Sample ID: 480-45969-15

Date Collected: 09/16/13 14:55 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.3

	: - Polychlorinated Biphenyl	- (CC/ECD)
I METHON: XUX	- Polychiorinated Binnenyi	S ((=(./F(.1))

Tetrachloro-m-xylene

Method: 8082 - Polychlorin	ated Biphenyls (GC/ECD)							
Analyte	Result Qualifie	er RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0349	0.0349	0.0222	mg/Kg	₩	09/20/13 10:20	09/24/13 07:04	1
PCB-1221	<0.0349	0.0349	0.0169	mg/Kg	₽	09/20/13 10:20	09/24/13 07:04	1
PCB-1232	<0.0349	0.0349	0.0148	mg/Kg	₽	09/20/13 10:20	09/24/13 07:04	1
PCB-1242	<0.0349	0.0349	0.0138	mg/Kg	₽	09/20/13 10:20	09/24/13 07:04	1
PCB-1248	<0.0349	0.0349	0.0180	mg/Kg	₽	09/20/13 10:20	09/24/13 07:04	1
PCB-1254	<0.0349	0.0349	0.0180	mg/Kg	≎	09/20/13 10:20	09/24/13 07:04	1
PCB-1260	0.287	0.0349	0.0180	mg/Kg	\$	09/20/13 10:20	09/24/13 07:04	1
PCB-1262	<0.0349	0.0349	0.0286	mg/Kg	₽	09/20/13 10:20	09/24/13 07:04	1
PCB-1268	<0.0349	0.0349	0.0148	mg/Kg	\$	09/20/13 10:20	09/24/13 07:04	1
Surrogate	%Recovery Qualific	er Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91	30 - 150				09/20/13 10:20	09/24/13 07:04	1

TestAmerica Buffalo

09/24/13 07:04

09/20/13 10:20

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500

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

Client Sample ID: WCSS-26-(0-0.25)

Lab Sample ID: 480-45969-15 Date Collected: 09/16/13 14:55

Matrix: Solid Percent Solids: 94.3

Date Received: 09/18/13 01:30

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91	30 - 15	09/20/13 10:20	09/24/13 07:04	1
DCB Decachlorobiphenyl	80	30 _ 15	09/20/13 10:20	09/24/13 07:04	1

Client Sample ID: WCSS-27-(0-0.25)

Lab Sample ID: 480-45969-16 Date Collected: 09/16/13 14:15 **Matrix: Solid** 

Date Received: 09/18/13 01:30 Percent Solids: 87.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0744		0.0744	0.0474	mg/Kg	<del>\tilde{\pi}</del>	09/20/13 10:20	09/24/13 07:19	2
PCB-1221	<0.0744		0.0744	0.0361	mg/Kg	₽	09/20/13 10:20	09/24/13 07:19	2
PCB-1232	<0.0744		0.0744	0.0316	mg/Kg	₽	09/20/13 10:20	09/24/13 07:19	2
PCB-1242	<0.0744		0.0744	0.0293	mg/Kg	₽	09/20/13 10:20	09/24/13 07:19	2
PCB-1248	<0.0744		0.0744	0.0383	mg/Kg	₽	09/20/13 10:20	09/24/13 07:19	2
PCB-1254	<0.0744		0.0744	0.0383	mg/Kg	₩	09/20/13 10:20	09/24/13 07:19	2
PCB-1260	0.813		0.0744	0.0383	mg/Kg	₽	09/20/13 10:20	09/24/13 07:19	2
PCB-1262	<0.0744		0.0744	0.0609	mg/Kg	₩	09/20/13 10:20	09/24/13 07:19	2
PCB-1268	<0.0744		0.0744	0.0316	mg/Kg	₽	09/20/13 10:20	09/24/13 07:19	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		30 - 150				09/20/13 10:20	09/24/13 07:19	2
Tetrachloro-m-xylene	91		30 - 150				09/20/13 10:20	09/24/13 07:19	2
DCB Decachlorobiphenyl	115		30 _ 150				09/20/13 10:20	09/24/13 07:19	2
DCB Decachlorobiphenyl	94		30 - 150				09/20/13 10:20	09/24/13 07:19	2

Client Sample ID: WCSS-28-(0-0.25)

Lab Sample ID: 480-45969-17 Date Collected: 09/16/13 13:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 93.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0698		0.0698	0.0444	mg/Kg	<del></del>	09/20/13 10:20	09/24/13 07:35	2
PCB-1221	<0.0698		0.0698	0.0339	mg/Kg	₽	09/20/13 10:20	09/24/13 07:35	2
PCB-1232	<0.0698		0.0698	0.0296	mg/Kg	₽	09/20/13 10:20	09/24/13 07:35	2
PCB-1242	<0.0698		0.0698	0.0275	mg/Kg	*	09/20/13 10:20	09/24/13 07:35	2
PCB-1248	<0.0698		0.0698	0.0360	mg/Kg	₽	09/20/13 10:20	09/24/13 07:35	2
PCB-1254	<0.0698		0.0698	0.0360	mg/Kg	₽	09/20/13 10:20	09/24/13 07:35	2
PCB-1260	0.133		0.0698	0.0360	mg/Kg	₽	09/20/13 10:20	09/24/13 07:35	2
PCB-1262	<0.0698		0.0698	0.0571	mg/Kg	₽	09/20/13 10:20	09/24/13 07:35	2
PCB-1268	<0.0698		0.0698	0.0296	mg/Kg	₩	09/20/13 10:20	09/24/13 07:35	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		30 - 150				09/20/13 10:20	09/24/13 07:35	2
Tetrachloro-m-xylene	67		30 - 150				09/20/13 10:20	09/24/13 07:35	2
DCB Decachlorobiphenyl	635	X	30 - 150				09/20/13 10:20	09/24/13 07:35	2
DCB Decachlorobiphenyl	61		30 - 150				09/20/13 10:20	09/24/13 07:35	2

Client: Woodard & Curran Inc

Project/Site: Quincy Inervale

Client Sample ID: WCSS-29-(0-0.25)

Lab Sample ID: 480-45969-18 Date Collected: 09/16/13 14:15 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 92.6

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac  $\overline{\alpha}$ PCB-1016 <1.77 1.77 1.13 mg/Kg 09/20/13 09:23 09/24/13 03:54 50 PCB-1221 09/20/13 09:23 <1 77 1.77 09/24/13 03:54 50 0.859 mg/Kg Ü PCB-1232 <1.77 1.77 0.751 mg/Kg 09/20/13 09:23 09/24/13 03:54 50 PCB-1242 <1.77 1.77 0.698 mg/Kg 09/20/13 09:23 09/24/13 03:54 50 PCB-1248 <1.77 1.77 0.912 mg/Kg 09/20/13 09:23 09/24/13 03:54 50 PCB-1254 0.912 mg/Kg 09/20/13 09:23 09/24/13 03:54 50 <1 77 1 77 PCB-1260 13.8 1.77 0.912 mg/Kg 09/20/13 09:23 09/24/13 03:54 50 PCB-1262 <1.77 1.77 1.45 mg/Kg 09/20/13 09:23 09/24/13 03:54 50 PCB-1268 0.751 mg/Kg 09/20/13 09:23 09/24/13 03:54 <1.77 1.77 50 Prepared Dil Fac Surrogate %Recovery Qualifier Limits Analyzed Tetrachloro-m-xylene 0  $\overline{X}$ 30 - 150 09/20/13 09:23 09/24/13 03:54 50 Tetrachloro-m-xylene 0 X 30 - 150 09/20/13 09:23 09/24/13 03:54 50 DCB Decachlorobiphenyl 0 X 30 - 150 09/20/13 09:23 09/24/13 03:54 50 0 X DCB Decachlorobiphenyl 30 - 150 09/20/13 09:23 09/24/13 03:54 50

Client Sample ID: WCSS-30-(0-0.25)

Lab Sample ID: 480-45969-19 Date Collected: 09/16/13 14:30 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 92.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.357		0.357	0.227	mg/Kg	₩	09/20/13 09:23	09/24/13 04:09	10
PCB-1221	<0.357		0.357	0.173	mg/Kg	₽	09/20/13 09:23	09/24/13 04:09	10
PCB-1232	<0.357		0.357	0.152	mg/Kg	₽	09/20/13 09:23	09/24/13 04:09	10
PCB-1242	<0.357		0.357	0.141	mg/Kg	₽	09/20/13 09:23	09/24/13 04:09	10
PCB-1248	<0.357		0.357	0.184	mg/Kg	₩	09/20/13 09:23	09/24/13 04:09	10
PCB-1254	0.483		0.357	0.184	mg/Kg	₽	09/20/13 09:23	09/24/13 04:09	10
PCB-1260	<0.357		0.357	0.184	mg/Kg	<b>\$</b>	09/20/13 09:23	09/24/13 04:09	10
PCB-1262	<0.357		0.357	0.292	mg/Kg	₽	09/20/13 09:23	09/24/13 04:09	10
PCB-1268	<0.357		0.357	0.152	mg/Kg	₩	09/20/13 09:23	09/24/13 04:09	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 09:23	09/24/13 04:09	10
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 09:23	09/24/13 04:09	10
DCB Decachlorobiphenyl	0	X	30 - 150				09/20/13 09:23	09/24/13 04:09	10
DCB Decachlorobiphenyl	0	X	30 - 150				09/20/13 09:23	09/24/13 04:09	10

Client Sample ID: WCSS-32-(0-0.25) Lab Sample ID: 480-45969-21

Date Collected: 09/16/13 14:45 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 92.4

ted Biphenyls (GC/	ECD)							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.0352		0.0352	0.0224	mg/Kg	₩	09/20/13 09:23	09/24/13 04:23	1
< 0.0352		0.0352	0.0171	mg/Kg	₽	09/20/13 09:23	09/24/13 04:23	1
< 0.0352		0.0352	0.0149	mg/Kg	₩	09/20/13 09:23	09/24/13 04:23	1
<0.0352		0.0352	0.0139	mg/Kg	₽	09/20/13 09:23	09/24/13 04:23	1
< 0.0352		0.0352	0.0181	mg/Kg	₽	09/20/13 09:23	09/24/13 04:23	1
< 0.0352		0.0352	0.0181	mg/Kg	₩	09/20/13 09:23	09/24/13 04:23	1
	Result <0.0352 <0.0352 <0.0352 <0.0352 <0.0352 <0.0352	Result Qualifier <0.0352 <0.0352 <0.0352 <0.0352 <0.0352 <0.0352	Result         Qualifier         RL           <0.0352	Result         Qualifier         RL         MDL           <0.0352	Result         Qualifier         RL         MDL         Unit           <0.0352	Result         Qualifier         RL         MDL         Unit         D           <0.0352	Result         Qualifier         RL         MDL         Unit         D         Prepared           <0.0352	Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed           <0.0352

TestAmerica Buffalo

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## Client Sample Results

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

Client Sample ID: WCSS-32-(0-0.25)

Lab Sample ID: 480-45969-21 Date Collected: 09/16/13 14:45 Matrix: Solid Date Received: 09/18/13 01:30

Percent Solids: 92.4

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued) Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed  $\overline{\alpha}$ PCB-1260 0.309 0.0352 0.0181 mg/Kg 09/20/13 09:23 09/24/13 04:23 PCB-1262 <0.0352 0.0352 0.0288 mg/Kg 09/20/13 09:23 09/24/13 04:23 PCB-1268 <0.0352 0.0352 0.0149 mg/Kg 09/20/13 09:23 09/24/13 04:23 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 54 30 - 150 09/20/13 09:23 09/24/13 04:23 Tetrachloro-m-xylene Tetrachloro-m-xylene 67 30 - 150 09/20/13 09:23 09/24/13 04:23 DCB Decachlorobiphenyl 78 30 - 150 09/20/13 09:23 09/24/13 04:23 30 - 150 09/20/13 09:23 09/24/13 04:23 DCB Decachlorobiphenyl 94

Client Sample ID: WCSS-33-(0-0.25) Lab Sample ID: 480-45969-22

Date Collected: 09/16/13 15:20 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.390		0.390	0.248	mg/Kg	*	09/20/13 09:23	09/24/13 04:38	10
PCB-1221	<0.390		0.390	0.189	mg/Kg	₽	09/20/13 09:23	09/24/13 04:38	10
PCB-1232	<0.390		0.390	0.165	mg/Kg	₽	09/20/13 09:23	09/24/13 04:38	10
PCB-1242	<0.390		0.390	0.154	mg/Kg	₽	09/20/13 09:23	09/24/13 04:38	10
PCB-1248	<0.390		0.390	0.201	mg/Kg	₩	09/20/13 09:23	09/24/13 04:38	10
PCB-1254	<0.390		0.390	0.201	mg/Kg	₩	09/20/13 09:23	09/24/13 04:38	10
PCB-1260	5.03		0.390	0.201	mg/Kg	₽	09/20/13 09:23	09/24/13 04:38	10
PCB-1262	<0.390		0.390	0.319	mg/Kg	₩	09/20/13 09:23	09/24/13 04:38	10
PCB-1268	<0.390		0.390	0.165	mg/Kg	₩	09/20/13 09:23	09/24/13 04:38	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	102		30 - 150				09/20/13 09:23	09/24/13 04:38	10
Tetrachloro-m-xylene	106		30 - 150				09/20/13 09:23	09/24/13 04:38	10
DCB Decachlorobiphenyl	226	X	30 - 150				09/20/13 09:23	09/24/13 04:38	10
DCB Decachlorobiphenyl	282	X	30 - 150				09/20/13 09:23	09/24/13 04:38	10

Client Sample ID: WCSS-34-(0-0.25) Lab Sample ID: 480-45969-23

Date Collected: 09/16/13 15:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 85.0

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.391	0.391	0.249	mg/Kg	\$	09/20/13 09:23	09/24/13 04:53	10
PCB-1221	<0.391	0.391	0.190	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
PCB-1232	<0.391	0.391	0.166	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
PCB-1242	<0.391	0.391	0.154	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
PCB-1248	<0.391	0.391	0.202	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
PCB-1254	<0.391	0.391	0.202	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
PCB-1260	5.31	0.391	0.202	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
PCB-1262	<0.391	0.391	0.320	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
PCB-1268	<0.391	0.391	0.166	mg/Kg	₽	09/20/13 09:23	09/24/13 04:53	10
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		30 - 150				09/20/13 09:23	09/24/13 04:53	10
Tetrachloro-m-xylene	0 X	30 - 150				09/20/13 09:23	09/24/13 04:53	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-34-(0-0.25)

Date Collected: 09/16/13 15:45 Date Received: 09/18/13 01:30 Lab Sample ID: 480-45969-23

Matrix: Solid

Percent Solids: 85.0

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	d Analyzed	Dil Fac
DCB Decachlorobiphenyl	221	X	30 - 150	09/20/13 09	09/24/13 04:53	10
DCB Decachlorobiphenyl	286	X	30 - 150	09/20/13 09	09/24/13 04:53	10

Client Sample ID: WCSS-35-(0-0.25)

Lab Sample ID: 480-45969-24

Date Collected: 09/16/13 15:50 Matrix: Solid
Date Received: 09/18/13 01:30 Percent Solids: 92.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.176		0.176	0.112	mg/Kg	₩	09/20/13 09:23	09/24/13 05:08	5
PCB-1221	<0.176		0.176	0.0853	mg/Kg	₩	09/20/13 09:23	09/24/13 05:08	5
PCB-1232	<0.176		0.176	0.0747	mg/Kg	₩	09/20/13 09:23	09/24/13 05:08	5
PCB-1242	<0.176		0.176	0.0693	mg/Kg	₽	09/20/13 09:23	09/24/13 05:08	5
PCB-1248	<0.176		0.176	0.0907	mg/Kg	₩	09/20/13 09:23	09/24/13 05:08	5
PCB-1254	<0.176		0.176	0.0907	mg/Kg	₩	09/20/13 09:23	09/24/13 05:08	5
PCB-1260	1.41		0.176	0.0907	mg/Kg	₽	09/20/13 09:23	09/24/13 05:08	5
PCB-1262	<0.176		0.176	0.144	mg/Kg	₩	09/20/13 09:23	09/24/13 05:08	5
PCB-1268	<0.176		0.176	0.0747	mg/Kg	₩	09/20/13 09:23	09/24/13 05:08	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		30 - 150				09/20/13 09:23	09/24/13 05:08	5
Tetrachloro-m-xylene	89		30 - 150				09/20/13 09:23	09/24/13 05:08	5
DCB Decachlorobiphenyl	102		30 - 150				09/20/13 09:23	09/24/13 05:08	5
DCB Decachlorobiphenyl	203	X	30 - 150				09/20/13 09:23	09/24/13 05:08	5

Client Sample ID: WCSS-36-(0-0.25)

Lab Sample ID: 480-45969-25

Date Collected: 09/16/13 15:05

Date Received: 09/18/13 01:30

Matrix: Solid
Percent Solids: 92.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.361		0.361	0.229	mg/Kg	<del></del>	09/20/13 09:23	09/24/13 05:23	10
PCB-1221	<0.361		0.361	0.175	mg/Kg	₽	09/20/13 09:23	09/24/13 05:23	10
PCB-1232	<0.361		0.361	0.153	mg/Kg	₽	09/20/13 09:23	09/24/13 05:23	10
PCB-1242	<0.361		0.361	0.142	mg/Kg	\$	09/20/13 09:23	09/24/13 05:23	10
PCB-1248	<0.361		0.361	0.186	mg/Kg	₽	09/20/13 09:23	09/24/13 05:23	10
PCB-1254	<0.361		0.361	0.186	mg/Kg	₩	09/20/13 09:23	09/24/13 05:23	10
PCB-1260	3.30		0.361	0.186	mg/Kg	₽	09/20/13 09:23	09/24/13 05:23	10
PCB-1262	<0.361		0.361	0.295	mg/Kg	₽	09/20/13 09:23	09/24/13 05:23	10
PCB-1268	<0.361		0.361	0.153	mg/Kg	₩	09/20/13 09:23	09/24/13 05:23	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	104		30 - 150				09/20/13 09:23	09/24/13 05:23	10
Tetrachloro-m-xylene	111		30 - 150				09/20/13 09:23	09/24/13 05:23	10
DCB Decachlorobiphenyl	169	X	30 - 150				09/20/13 09:23	09/24/13 05:23	10
DCB Decachlorobiphenyl	210	X	30 - 150				09/20/13 09:23	09/24/13 05:23	10

Lab Sample ID: 480-45969-29

09/20/13 09:23

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-40-(0-0.25)

Lab Sample ID: 480-45969-28 Date Collected: 09/16/13 08:35 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 96.4

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte  $\overline{\alpha}$ PCB-1016 <0.347 0.347 0.221 mg/Kg 09/20/13 09:23 09/24/13 05:38 PCB-1221 < 0.347 0.347 09/20/13 09:23 09/24/13 05:38 10 0.168 mg/Kg ä PCB-1232 < 0.347 0.347 0.147 mg/Kg 09/20/13 09:23 09/24/13 05:38 10 PCB-1242 < 0.347 0.347 0.137 mg/Kg 09/20/13 09:23 09/24/13 05:38 10 PCB-1248 < 0.347 0.347 0.179 mg/Kg 09/20/13 09:23 09/24/13 05:38 10 PCB-1254 < 0.347 0.347 09/20/13 09:23 09/24/13 05:38 10 0.179 mg/Kg PCB-1260 3.05 0.347 0.179 mg/Kg 09/20/13 09:23 09/24/13 05:38 10 PCB-1262 < 0.347 0.347 0.284 mg/Kg 09/20/13 09:23 09/24/13 05:38 10 PCB-1268 09/20/13 09:23 < 0.347 0.347 0.147 mg/Kg 09/24/13 05:38 10 Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed Tetrachloro-m-xylene 0  $\overline{X}$ 30 - 150 09/20/13 09:23 09/24/13 05:38 10 Tetrachloro-m-xylene 0 X 30 - 150 09/20/13 09:23 10 09/24/13 05:38 DCB Decachlorobiphenyl 154 X 30 - 150 09/20/13 09:23 09/24/13 05:38 10 DCB Decachlorobiphenyl 304 X 30 - 150 09/20/13 09:23 09/24/13 05:38 10

Client Sample ID: WCSS-41-(0-0.25)

DCB Decachlorobiphenyl

Date Collected: 09/16/13 09:55 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 90.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.68		3.68	2.34	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1221	<3.68		3.68	1.78	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1232	<3.68		3.68	1.56	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1242	<3.68		3.68	1.45	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1248	<3.68		3.68	1.90	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1254	<3.68		3.68	1.90	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1260	33.4		3.68	1.90	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1262	<3.68		3.68	3.01	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
PCB-1268	<3.68		3.68	1.56	mg/Kg	₽	09/20/13 09:23	09/24/13 05:53	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/20/13 09:23	09/24/13 05:53	100
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 09:23	09/24/13 05:53	100
DCB Decachlorobiphenvl	0	X	30 - 150				09/20/13 09:23	09/24/13 05:53	100

Lab Sample ID: 480-45969-30 Client Sample ID: WCSS-43-(0-0.25)

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0 X

Date Collected: 09/16/13 09:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 98.8

Method: 8082 - Polychlorina	ted Biphenyls (GC/E	CD)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<16.7		16.7	10.7	mg/Kg	<del>-</del>	09/20/13 09:23	09/26/13 13:50	500
PCB-1221	<16.7		16.7	8.11	mg/Kg	₽	09/20/13 09:23	09/26/13 13:50	500
PCB-1232	<16.7		16.7	7.10	mg/Kg	₩	09/20/13 09:23	09/26/13 13:50	500
PCB-1242	<16.7		16.7	6.59	mg/Kg	₩	09/20/13 09:23	09/26/13 13:50	500
PCB-1248	<16.7		16.7	8.62	mg/Kg	₩	09/20/13 09:23	09/26/13 13:50	500
PCB-1254	<16.7		16.7	8.62	mg/Kg	₩	09/20/13 09:23	09/26/13 13:50	500

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09/24/13 05:53

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-30

TestAmerica Job ID: 480-45969-2

Matrix: Solid Percent Solids: 98.8

Client Sample ID: WCSS-43-(0-0.25)

Date Collected: 09/16/13 09:45 Date Received: 09/18/13 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	173		16.7	8.62	mg/Kg	\$	09/20/13 09:23	09/26/13 13:50	500
PCB-1262	<16.7		16.7	13.7	mg/Kg	₽	09/20/13 09:23	09/26/13 13:50	500
PCB-1268	<16.7		16.7	7.10	mg/Kg	₽	09/20/13 09:23	09/26/13 13:50	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/20/13 09:23	09/26/13 13:50	500
Tetrachloro-m-xylene	0	Χ	30 - 150				09/20/13 09:23	09/26/13 13:50	500
DCB Decachlorobiphenyl	0	Χ	30 - 150				09/20/13 09:23	09/26/13 13:50	500
DCB Decachlorobiphenyl	0	X	30 - 150				09/20/13 09:23	09/26/13 13:50	500

Client Sample ID: WCSS-44-(0-0.25)

Date Collected: 09/16/13 15:25 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-31

**Matrix: Solid** Percent Solids: 99.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.670		0.670	0.426	mg/Kg	\$	09/20/13 09:23	09/26/13 14:05	20
PCB-1221	<0.670		0.670	0.325	mg/Kg	₽	09/20/13 09:23	09/26/13 14:05	20
PCB-1232	<0.670		0.670	0.284	mg/Kg	₩	09/20/13 09:23	09/26/13 14:05	20
PCB-1242	1.74		0.670	0.264	mg/Kg	₽	09/20/13 09:23	09/26/13 14:05	20
PCB-1248	<0.670		0.670	0.345	mg/Kg	₩	09/20/13 09:23	09/26/13 14:05	20
PCB-1254	8.32		0.670	0.345	mg/Kg	₩	09/20/13 09:23	09/26/13 14:05	20
PCB-1260	<0.670		0.670	0.345	mg/Kg	₽	09/20/13 09:23	09/26/13 14:05	20
PCB-1262	<0.670		0.670	0.548	mg/Kg	₽	09/20/13 09:23	09/26/13 14:05	20
PCB-1268	<0.670		0.670	0.284	mg/Kg	₽	09/20/13 09:23	09/26/13 14:05	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/20/13 09:23	09/26/13 14:05	20
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 09:23	09/26/13 14:05	20
DCB Decachlorobiphenyl	305	X	30 - 150				09/20/13 09:23	09/26/13 14:05	20

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226 X

Client Sample ID: WCSS-45-(0-0.25)

Date Collected: 09/16/13 09:30 Date Received: 09/18/13 01:30

DCB Decachlorobiphenyl

Lab Sample ID: 480-45969-32

09/20/13 09:23 09/26/13 14:05

**Matrix: Solid** Percent Solids: 87.4

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.375		0.375	0.239	mg/Kg	₩	09/20/13 09:23	09/26/13 14:20	10
PCB-1221	<0.375		0.375	0.182	mg/Kg	₽	09/20/13 09:23	09/26/13 14:20	10
PCB-1232	<0.375		0.375	0.159	mg/Kg	₩	09/20/13 09:23	09/26/13 14:20	10
PCB-1242	0.189	J	0.375	0.148	mg/Kg	₽	09/20/13 09:23	09/26/13 14:20	10
PCB-1248	<0.375		0.375	0.193	mg/Kg	₽	09/20/13 09:23	09/26/13 14:20	10
PCB-1254	<0.375		0.375	0.193	mg/Kg	₩	09/20/13 09:23	09/26/13 14:20	10
PCB-1260	5.62		0.375	0.193	mg/Kg	₽	09/20/13 09:23	09/26/13 14:20	10
PCB-1262	<0.375		0.375	0.307	mg/Kg	₽	09/20/13 09:23	09/26/13 14:20	10
PCB-1268	<0.375		0.375	0.159	mg/Kg	₽	09/20/13 09:23	09/26/13 14:20	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene		X	30 - 150				09/20/13 09:23	09/26/13 14:20	10
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 09:23	09/26/13 14:20	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

Client Sample ID: WCSS-45-(0-0.25)

Lab Sample ID: 480-45969-32 Date Collected: 09/16/13 09:30

Matrix: Solid Percent Solids: 87.4

Date Received: 09/18/13 01:30

### Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	192	X	30 - 150	09/20/13 09:23	09/26/13 14:20	10
DCB Decachlorobiphenyl	161	X	30 - 150	09/20/13 09:23	09/26/13 14:20	10

**Client Sample ID: WCSS-918-(0-0.25)** 

Lab Sample ID: 480-45969-36 Date Collected: 09/16/13 11:00 Matrix: Solid

Date Received: 09/18/13 01:30 Percent Solids: 89.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.370		0.370	0.236	mg/Kg	\$	09/20/13 09:23	09/26/13 14:35	10
PCB-1221	< 0.370		0.370	0.180	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
PCB-1232	<0.370		0.370	0.157	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
PCB-1242	0.241	J	0.370	0.146	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
PCB-1248	<0.370		0.370	0.191	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
PCB-1254	<0.370		0.370	0.191	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
PCB-1260	2.25		0.370	0.191	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
PCB-1262	<0.370		0.370	0.303	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
PCB-1268	<0.370		0.370	0.157	mg/Kg	₽	09/20/13 09:23	09/26/13 14:35	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 09:23	09/26/13 14:35	10
Tetrachloro-m-xylene	0	X	30 - 150				09/20/13 09:23	09/26/13 14:35	10
DCB Decachlorobiphenyl	194	X	30 - 150				09/20/13 09:23	09/26/13 14:35	10
DCB Decachlorobiphenyl	159	X	30 - 150				09/20/13 09:23	09/26/13 14:35	10

Client Sample ID: WCEB-27-(0-0.25)

Lab Sample ID: 480-45969-37 Date Collected: 09/16/13 14:25 Matrix: Water

Date Received: 09/18/13 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1221	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1232	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1242	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1248	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1254	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1260	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1262	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
PCB-1268	<0.243	0.243	0.0974	ug/L		09/24/13 14:50	09/25/13 08:41	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77	30 - 150				09/24/13 14:50	09/25/13 08:41	1
DCB Decachlorobiphenyl	61	30 - 150				09/24/13 14:50	09/25/13 08:41	1

# **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

Lab Sample ID: 480-45969-39

Matrix: Solid

Percent Solids: 93.8

Client Sampl	e ID: \	WCSS-935-	(0-0.25)
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Date Collected: 09/16/13 15:00 Date Received: 09/18/13 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.174		0.174	0.111	mg/Kg	<u> </u>	09/20/13 09:23	09/26/13 14:51	5
PCB-1221	<0.174		0.174	0.0843	mg/Kg	₽	09/20/13 09:23	09/26/13 14:51	5
PCB-1232	<0.174		0.174	0.0737	mg/Kg	₽	09/20/13 09:23	09/26/13 14:51	5
PCB-1242	0.138	J	0.174	0.0685	mg/Kg	₽	09/20/13 09:23	09/26/13 14:51	5
PCB-1248	<0.174		0.174	0.0895	mg/Kg	₽	09/20/13 09:23	09/26/13 14:51	5
PCB-1254	<0.174		0.174	0.0895	mg/Kg	₽	09/20/13 09:23	09/26/13 14:51	5
PCB-1260	1.27		0.174	0.0895	mg/Kg	<b>\$</b>	09/20/13 09:23	09/26/13 14:51	5
PCB-1262	<0.174		0.174	0.142	mg/Kg	₽	09/20/13 09:23	09/26/13 14:51	5
PCB-1268	<0.174		0.174	0.0737	mg/Kg	₽	09/20/13 09:23	09/26/13 14:51	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		30 - 150				09/20/13 09:23	09/26/13 14:51	5
Tetrachloro-m-xylene	99		30 - 150				09/20/13 09:23	09/26/13 14:51	5
DCB Decachlorobiphenyl	133		30 - 150				09/20/13 09:23	09/26/13 14:51	5
DCB Decachlorobiphenyl	102		30 - 150				09/20/13 09:23	09/26/13 14:51	5

5

6

8

9

11

12

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid Prep Type: Total/NA

				Percent Sui	rogate Recovery (Ad	cceptance Limits
		TCX1	TCX2	DCB1	DCB2	
_ab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)	
80-45969-1	WCSS-11-(0-0.25)	0 X	0 X	406 X	287 X	
0-45969-2	WCSS-13-(0-0.25)	79	75	76	73	
30-45969-6	WCSS-18-(0-0.25)	94	91	168 X	145	
80-45969-7	WCSS-17-(0-0.25)	86	87	107	53	
80-45969-8	WCSS-19-(0-0.25)	97	99	107	113	
30-45969-9	WCSS-20-(0-0.25)	101	103	405 X	146	
80-45969-10	WCSS-21-(0-0.25)	89	94	137	83	
80-45969-11	WCSS-22-(0-0.25)	0 X	0 X	0 X	0 X	
30-45969-12	WCSS-23-(0-0.25)	0 X	0 X	237 X	109	
80-45969-13	WCSS-25-(0-0.25)	0 X	0 X	0 X	0 X	
30-45969-14	WCSS-24-(0-0.25)	0 X	0 X	336 X	298 X	
0-45969-15	WCSS-26-(0-0.25)	91	92	91	80	
30-45969-16	WCSS-27-(0-0.25)	96	91	115	94	
)-45969-17	WCSS-28-(0-0.25)	83	67	635 X	61	
0-45969-18	WCSS-29-(0-0.25)	0 X	0 X	0 X	0 X	
0-45969-19	WCSS-30-(0-0.25)	0 X	0 X	0 X	0 X	
-45969-21	WCSS-32-(0-0.25)	54	67	78	94	
0-45969-22	WCSS-33-(0-0.25)	102	106	226 X	282 X	
)-45969-23	WCSS-34-(0-0.25)	0 X	0 X	221 X	286 X	
0-45969-24	WCSS-35-(0-0.25)	89	89	102	203 X	
80-45969-25	WCSS-36-(0-0.25)	104	111	169 X	210 X	
30-45969-28	WCSS-40-(0-0.25)	0 X	0 X	154 X	304 X	
80-45969-29	WCSS-41-(0-0.25)	0 X	0 X	0 X	0 X	
30-45969-30	WCSS-43-(0-0.25)	0 X	0 X	0 X	0 X	
30-45969-31	WCSS-44-(0-0.25)	0 X	0 X	305 X	226 X	
30-45969-32	WCSS-45-(0-0.25)	0 X	0 X	192 X	161 X	
30-45969-36	WCSS-918-(0-0.25)	0 X	0 X	194 X	159 X	
80-45969-39	WCSS-935-(0-0.25)	97	99	133	102	
CS 240-102228/24-A	Lab Control Sample	78	80	93	117	
CS 240-102245/24-A	Lab Control Sample	100	166 X	94	90	
CSD 240-102228/25-A	Lab Control Sample Dup	81	85	93	106	
CSD 240-102245/25-A	Lab Control Sample Dup	85	112	85	77	
MB 240-102228/23-A	Method Blank	76	112	83	99	
IB 240-102245/23-A	Method Blank	83	94	79	75	
N						

### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

### Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		TCX1	DCB1	
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	
480-45969-37	WCEB-27-(0-0.25)	77	61	
LCS 480-140916/2-A	Lab Control Sample	81	79	
LCSD 480-140916/3-A	Lab Control Sample Dup	76	72	
MB 480-140916/1-A	Method Blank	76	46	

# **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

#### **Surrogate Legend**

TCX = Tetrachloro-m-xylene DCB = DCB Decachlorobiphenyl

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 240-102228/23-A

Matrix: Solid

Analysis Batch: 102599

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 102228

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		09/20/13 09:23	09/24/13 06:08	1
PCB-1268	<0.0330		0.0330	0.0140	mg/Kg		09/20/13 09:23	09/24/13 06:08	1

мв мв

Surrogate	%Recovery	Qualifier Limit	Prepared Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76	30 - 1	09/20/13 09:23	09/24/13 06:08	1
Tetrachloro-m-xylene	112	30 - 1	50 09/20/13 09:23	09/24/13 06:08	1
DCB Decachlorobiphenyl	83	30 - 1	50 09/20/13 09:23	09/24/13 06:08	1
DCB Decachlorobiphenyl	99	30 - 1	50 09/20/13 09:23	09/24/13 06:08	1

Lab Sample ID: LCS 240-102228/24-A

Matrix: Solid

Analysis Batch: 102599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102228

Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016			0.333	0.2486		mg/Kg		75	40 - 140	
PCB-1260			0.333	0.2809		mg/Kg		84	40 - 140	
	LCS	LCS								

LCS LCS

Spike

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	78		30 - 150
Tetrachloro-m-xylene	80		30 - 150
DCB Decachlorobiphenyl	93		30 - 150
DCB Decachlorobiphenyl	117		30 _ 150

Lab Sample ID: LCSD 240-102228/25-A

Matrix: Solid

Analysis Batch: 102599

Client	Sample	ID:	Lab	Contr	ol Saı	mple	Dup

Prep Type: Total/NA Prep Batch: 102228

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit Limits Limit PCB-1016 0.333 0.2452 mg/Kg 74 40 - 140 30 PCB-1260 0.333 0.2765 mg/Kg 83 40 - 140 30 2

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	81		30 - 150
Tetrachloro-m-xylene	85		30 - 150
DCB Decachlorobiphenyl	93		30 - 150
DCB Decachlorobiphenyl	106		30 - 150

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

### Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Lab Sample ID: MB 240-102245/23-A

Matrix: Solid

Analysis Batch: 102598

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 102245

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0330		0.0330	0.0210	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1221	<0.0330		0.0330	0.0160	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1232	<0.0330		0.0330	0.0140	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1242	<0.0330		0.0330	0.0130	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1248	<0.0330		0.0330	0.0170	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1254	<0.0330		0.0330	0.0170	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1260	<0.0330		0.0330	0.0170	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1262	<0.0330		0.0330	0.0270	mg/Kg		09/20/13 10:20	09/24/13 05:33	1
PCB-1268	<0.0330		0.0330	0.0140	mg/Kg		09/20/13 10:20	09/24/13 05:33	1

мв мв

MD MD

Surrogate	%Recovery	Qualifier L	_imits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		BO <sub>-</sub> 150	09/20/13 10:20	09/24/13 05:33	1
Tetrachloro-m-xylene	94	3	30 - 150	09/20/13 10:20	09/24/13 05:33	1
DCB Decachlorobiphenyl	79	3	30 - 150	09/20/13 10:20	09/24/13 05:33	1
DCB Decachlorobiphenyl	75	3	30 - 150	09/20/13 10:20	09/24/13 05:33	1

Client Sample ID: Lab Control Sample

Matrix: Solid

Matrix: Solid

Analysis Batch: 102598

Analysis Batch: 102804

Lab Sample ID: LCS 240-102245/24-A

Lab Sample ID: LCSD 240-102245/25-A

Prep Type: Total/NA

Prep Batch: 102245

	Spike	LUS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	 0.333	0.2663		mg/Kg		80	40 - 140	
PCB-1260	0.333	0.2778		mg/Kg		83	40 - 140	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	100		30 - 150
Tetrachloro-m-xylene	166	X	30 - 150
DCB Decachlorobiphenyl	94		30 - 150
DCB Decachlorobiphenyl	90		30 - 150

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 102245

	Spike	LCSD I	LCSD				%Rec.		RPD
Analyte	Added	Result (	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	 0.333	0.2759		mg/Kg	_	83	40 - 140	NaN	30
PCB-1260	0.333	0.2813		mg/Kg		84	40 - 140	NaN	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	85		30 - 150
Tetrachloro-m-xylene	112		30 - 150
DCB Decachlorobiphenyl	85		30 - 150
DCB Decachlorobiphenyl	77		30 - 150

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

### Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Lab Sample ID: MB 480-140916/1-A

**Matrix: Water** 

PCB-1268

Analysis Batch: 141006

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 140916** 

	MB MB							
Analyte	Result Qualifi	ier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
PCB-1016	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	
PCB-1221	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	
PCB-1232	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	
PCB-1242	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	
PCB-1248	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	
PCB-1254	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	
PCB-1260	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	
PCB-1262	<0.250	0.250	0.100	ug/L		09/24/13 14:50	09/25/13 07:56	

0.250

0.100 ug/L

мв мв

<0.250

Surrogate	%Recovery	Qualifier	Limits	P	Prepared	Analyzed
Tetrachloro-m-xylene	76		30 - 150	09/2	24/13 14:50	09/25/13 07:56
DCB Decachlorobiphenyl	46		30 - 150	09/2	24/13 14:50	09/25/13 07:56

**Client Sample ID: Lab Control Sample** 

09/25/13 07:56

09/24/13 14:50

Prep Type: Total/NA **Prep Batch: 140916** 

Dil Fac

**Matrix: Water** Analysis Batch: 141006 Spike LCS LCS

							,	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	 4.00	3.957		ug/L		99	40 - 140	
PCB-1260	4.00	3.888		ug/L		97	40 - 140	

30 - 150

LCS LCS %Recovery Qualifier Limits Surrogate Tetrachloro-m-xylene 81 30 - 150

Lab Sample ID: LCSD 480-140916/3-A

Lab Sample ID: LCS 480-140916/2-A

**Matrix: Water** 

DCB Decachlorobiphenyl

Analysis Batch: 141006

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 140916** 

	Spike	LCSD	LCSD			%Rec.		RPD	
Analyte	Added	Result	Qualifier Un	it D	%Rec	Limits	RPD	Limit	
PCB-1016	4.00	3.715	ug	/L	93	40 - 140	6	20	
PCB-1260	4.00	3.215	ug	/L	80	40 - 140	19	20	

LCSD LCSD

79

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	76		30 - 150
DCB Decachlorobiphenyl	72		30 _ 150

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

### GC Semi VOA

### Prep Batch: 102228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-18	WCSS-29-(0-0.25)	Total/NA	Solid	3540C	
480-45969-19	WCSS-30-(0-0.25)	Total/NA	Solid	3540C	
480-45969-21	WCSS-32-(0-0.25)	Total/NA	Solid	3540C	
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	3540C	
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	3540C	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	3540C	
480-45969-25	WCSS-36-(0-0.25)	Total/NA	Solid	3540C	
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	3540C	
480-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	3540C	
480-45969-30	WCSS-43-(0-0.25)	Total/NA	Solid	3540C	
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	3540C	
480-45969-32	WCSS-45-(0-0.25)	Total/NA	Solid	3540C	
480-45969-36	WCSS-918-(0-0.25)	Total/NA	Solid	3540C	
480-45969-39	WCSS-935-(0-0.25)	Total/NA	Solid	3540C	
LCS 240-102228/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-102228/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-102228/23-A	Method Blank	Total/NA	Solid	3540C	

### Prep Batch: 102245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	3540C	
480-45969-2	WCSS-13-(0-0.25)	Total/NA	Solid	3540C	
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	3540C	
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	3540C	
480-45969-8	WCSS-19-(0-0.25)	Total/NA	Solid	3540C	
480-45969-9	WCSS-20-(0-0.25)	Total/NA	Solid	3540C	
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	3540C	
480-45969-11	WCSS-22-(0-0.25)	Total/NA	Solid	3540C	
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	3540C	
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	3540C	
480-45969-14	WCSS-24-(0-0.25)	Total/NA	Solid	3540C	
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	3540C	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	3540C	
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	3540C	
LCS 240-102245/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-102245/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 240-102245/23-A	Method Blank	Total/NA	Solid	3540C	

### Analysis Batch: 102598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-2	WCSS-13-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-8	WCSS-19-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-9	WCSS-20-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-11	WCSS-22-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-14	WCSS-24-(0-0.25)	Total/NA	Solid	8082	102245

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-2

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### GC Semi VOA (Continued)

### Analysis Batch: 102598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	8082	102245
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	8082	102245
LCSD 240-102245/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	102245
MB 240-102245/23-A	Method Blank	Total/NA	Solid	8082	102245

### Analysis Batch: 102599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-18	WCSS-29-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-19	WCSS-30-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-21	WCSS-32-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-25	WCSS-36-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	8082	102228
LCS 240-102228/24-A	Lab Control Sample	Total/NA	Solid	8082	102228
LCSD 240-102228/25-A	Lab Control Sample Dup	Total/NA	Solid	8082	102228
MB 240-102228/23-A	Method Blank	Total/NA	Solid	8082	102228

### Analysis Batch: 102804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-102245/24-A	Lab Control Sample	Total/NA	Solid	8082	102245

### Analysis Batch: 103077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-30	WCSS-43-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-32	WCSS-45-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-36	WCSS-918-(0-0.25)	Total/NA	Solid	8082	102228
480-45969-39	WCSS-935-(0-0.25)	Total/NA	Solid	8082	102228

### **Prep Batch: 140916**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-37	WCEB-27-(0-0.25)	Total/NA	Water	3510C	
LCS 480-140916/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-140916/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-140916/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 141006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-37	WCEB-27-(0-0.25)	Total/NA	Water	8082	140916
LCS 480-140916/2-A	Lab Control Sample	Total/NA	Water	8082	140916
LCSD 480-140916/3-A	Lab Control Sample Dup	Total/NA	Water	8082	140916
MB 480-140916/1-A	Method Blank	Total/NA	Water	8082	140916

# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

### **General Chemistry**

### Analysis Batch: 102241

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	480-45969-36	WCSS-918-(0-0.25)	Total/NA	Solid	Moisture	
l	480-45969-39	WCSS-935-(0-0.25)	Total/NA	Solid	Moisture	

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TestAmerica Job ID: 480-45969-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-1

Client Sample ID: WCSS-11-(0-0.25) Date Collected: 09/16/13 12:00

Client Sample ID: WCSS-13-(0-0.25)

Matrix: Solid

Percent Solids: 90.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		20	102598	09/24/13 03:33	LSH	TAL CAN
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN

Lab Sample ID: 480-45969-2

Date Collected: 09/16/13 11:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 87.4

Batch Dilution Batch Prepared Batch Prep Type Туре Method Factor Number or Analyzed Analyst Run 3540C Total/NA Prep 102245 09/20/13 10:20 MPM TAL CAN Total/NA Analysis 8082 102598 TAL CAN 2 09/24/13 03:49 LSH

Client Sample ID: WCSS-18-(0-0.25) Lab Sample ID: 480-45969-6

Date Collected: 09/16/13 11:00 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 91.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		5	102598	09/24/13 04:04	LSH	TAL CAN

Lab Sample ID: 480-45969-7 Client Sample ID: WCSS-17-(0-0.25)

Date Collected: 09/16/13 12:25 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 89.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		5	102598	09/24/13 04:32	LSH	TAL CAN

Client Sample ID: WCSS-19-(0-0.25) Lab Sample ID: 480-45969-8

Date Collected: 09/16/13 12:35 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		5	102598	09/24/13 04:48	LSH	TAL CAN

Client Sample ID: WCSS-20-(0-0.25) Lab Sample ID: 480-45969-9

Date Collected: 09/16/13 12:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 88.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		5	102598	09/24/13 05:03	LSH	TAL CAN
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 11:30

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-21-(0-0.25)

Lab Sample ID: 480-45969-10

**Matrix: Solid** 

Percent Solids: 95.1

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		5	102598	09/24/13 05:18	LSH	TAL CAN

Client Sample ID: WCSS-22-(0-0.25) Lab Sample ID: 480-45969-11

Date Collected: 09/16/13 10:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		20	102598	09/24/13 16:01	LSH	TAL CAN
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN

Client Sample ID: WCSS-23-(0-0.25) Lab Sample ID: 480-45969-12

Date Collected: 09/16/13 13:10 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		10	102598	09/24/13 06:19	LSH	TAL CAN

**Client Sample ID: WCSS-25-(0-0.25)** Lab Sample ID: 480-45969-13

Date Collected: 09/16/13 13:35 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 82.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		500	102598	09/24/13 16:16	LSH	TAL CAN

Client Sample ID: WCSS-24-(0-0.25) Lab Sample ID: 480-45969-14

Date Collected: 09/16/13 12:55 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 89.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		20	102598	09/24/13 06:49	LSH	TAL CAN

Client Sample ID: WCSS-26-(0-0.25) Lab Sample ID: 480-45969-15

Date Collected: 09/16/13 14:55 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.3

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1	102598	09/24/13 07:04	LSH	TAL CAN

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 14:55

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-26-(0-0.25)

Lab Sample ID: 480-45969-15

Matrix: Solid

Percent Solids: 94.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN

Client Sample ID: WCSS-27-(0-0.25) Lab Sample ID: 480-45969-16

Date Collected: 09/16/13 14:15 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 87.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		2	102598	09/24/13 07:19	LSH	TAL CAN

Client Sample ID: WCSS-28-(0-0.25) Lab Sample ID: 480-45969-17

Date Collected: 09/16/13 13:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 93.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102245	09/20/13 10:20	MPM	TAL CAN
Total/NA	Analysis	8082		2	102598	09/24/13 07:35	LSH	TAL CAN

Client Sample ID: WCSS-29-(0-0.25) Lab Sample ID: 480-45969-18

Date Collected: 09/16/13 14:15 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 92.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		50	102599	09/24/13 03:54	LSH	TAL CAN

Client Sample ID: WCSS-30-(0-0.25) Lab Sample ID: 480-45969-19

Date Collected: 09/16/13 14:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 92.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		10	102599	09/24/13 04:09	LSH	TAL CAN

Client Sample ID: WCSS-32-(0-0.25) Lab Sample ID: 480-45969-21

Date Collected: 09/16/13 14:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 92.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		1	102599	09/24/13 04:23	LSH	TAL CAN

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-22

Matrix: Solid

Percent Solids: 85.2

Date Received: 09/18/13 01:30

Date Collected: 09/16/13 15:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C	·		102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		10	102599	09/24/13 04:38	LSH	TAL CAN

Client Sample ID: WCSS-34-(0-0.25)

Client Sample ID: WCSS-33-(0-0.25)

Lab Sample ID: 480-45969-23

Matrix: Solid

Percent Solids: 85.0

Date Received: 09/18/13 01:30

Date Collected: 09/16/13 15:50

Date Received: 09/18/13 01:30

Date Collected: 09/16/13 15:45

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		10	102599	09/24/13 04:53	LSH	TAL CAN

Client Sample ID: WCSS-35-(0-0.25)

Lab Sample ID: 480-45969-24

**Matrix: Solid** 

Percent Solids: 92.6

Batch Batch Batch Dilution Prepared Type Method Run Factor Number or Analyzed Analyst Lab

Prep Type 3540C 102228 09/20/13 09:23 TAL CAN Total/NA Prep MPM Total/NA Analysis 8082 5 102599 09/24/13 05:08 LSH TAL CAN

Client Sample ID: WCSS-36-(0-0.25)

Lab Sample ID: 480-45969-25

Matrix: Solid Percent Solids: 92.4

Date Collected: 09/16/13 15:05 Date Received: 09/18/13 01:30

Batch Batch Dilution Batch Prepared Method Prep Type Type Run Factor Number or Analyzed Analyst Lab 3540C MPM TAL CAN Total/NA Prep 102228 09/20/13 09:23 Total/NA 8082 10 TAL CAN Analysis 102599 09/24/13 05:23 LSH

Client Sample ID: WCSS-40-(0-0.25)

Lab Sample ID: 480-45969-28

Matrix: Solid

Date Collected: 09/16/13 08:35 Date Received: 09/18/13 01:30

Percent Solids: 96.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		10	102599	09/24/13 05:38	LSH	TAL CAN

Client Sample ID: WCSS-41-(0-0.25)

Lab Sample ID: 480-45969-29

Matrix: Solid Percent Solids: 90.3

Date Collected: 09/16/13 09:55 Date Received: 09/18/13 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		100	102599	09/24/13 05:53	LSH	TAL CAN

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TestAmerica Job ID: 480-45969-2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-30

Matrix: Solid

Percent Solids: 98.8

Client Sample ID: WCSS-43-(0-0.25)

Date Collected: 09/16/13 09:45 Date Received: 09/18/13 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		500	103077	09/26/13 13:50	LSH	TAL CAN

Client Sample ID: WCSS-44-(0-0.25)

Lab Sample ID: 480-45969-31

Date Collected: 09/16/13 15:25 Date Received: 09/18/13 01:30 Matrix: Solid
Percent Solids: 99.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		20	103077	09/26/13 14:05	LSH	TAL CAN

Client Sample ID: WCSS-45-(0-0.25)

Lab Sample ID: 480-45969-32

Date Collected: 09/16/13 09:30 Date Received: 09/18/13 01:30

Percent Solids: 87.4

**Matrix: Solid** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		10	103077	09/26/13 14:20	LSH	TAL CAN
Total/NA	Prep	3540C			102228	09/20/13 09:23	MPM	TAL CAN

**Client Sample ID: WCSS-918-(0-0.25)** 

Lab Sample ID: 480-45969-36

Date Collected: 09/16/13 11:00 Date Received: 09/18/13 01:30 Matrix: Solid

Date Received: 09/18/13 01:30

Percent Solids: 89.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C	<del></del>		102228	09/20/13 09:23	MPM	TAL CAN
Total/NA	Analysis	8082		10	103077	09/26/13 14:35	LSH	TAL CAN
Total/NA	Analysis	Moisture		1	102241	09/20/13 12:46	RPP	TAL CAN

Client Sample ID: WCEB-27-(0-0.25)

Lab Sample ID: 480-45969-37

Date Collected: 09/16/13 14:25 Date Received: 09/18/13 01:30 Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			140916	09/24/13 14:50	TRG	TAL BUF
Total/NA	Analysis	8082		1	141006	09/25/13 08:41	JMM	TAL BUF

Client Sample ID: WCSS-935-(0-0.25)

Lab Sample ID: 480-45969-39

Date Collected: 09/16/13 15:00 Date Received: 09/18/13 01:30

Percent Solids: 93.8

**Matrix: Solid** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3540C	· <u></u>		102228	09/20/13 09:23	MPM	TAL CAN

TestAmerica Buffalo

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### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-935-(0-0.25)

TestAmerica Job ID: 480-45969-2

Lab Sample ID: 480-45969-39

Matrix: Solid

Date Collected: 09/16/13 15:00 Date Received: 09/18/13 01:30 Percent Solids: 93.8

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8082		5	103077	09/26/13 14:51	LSH	TAL CAN	-
Total/NA	Analysis	Moisture		1	102241	09/20/13 12:46	RPP	TAL CAN	

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600 TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

### **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	10-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-14

### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-14 *
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-18-16
Nevada	State Program	9	OH-000482008A	07-31-14
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-14 *
Texas	NELAP	6		08-31-14 *

<sup>\*</sup> Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

9/27/2013

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# **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

### Laboratory: TestAmerica Canton (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority USDA	Program Federal	EPA Region	P330-11-00328	Expiration Date 08-26-14
Virginia	NELAP	3	460175	09-14-14
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-14

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# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-2

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL CAN
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL BUF
Moisture	Percent Moisture	EPA	TAL CAN

#### Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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# **Sample Summary**

Matrix

Solid

Solid

Solid

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID

WCSS-11-(0-0.25)

WCSS-13-(0-0.25)

WCSS-18-(0-0.25)

Lab Sample ID

480-45969-1

480-45969-2

480-45969-6

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America Job ID	): 480-45969-2					
Collected	Received					
09/16/13 12:00	09/18/13 01:30					
09/16/13 11:45	09/18/13 01:30					
09/16/13 11:00	09/18/13 01:30	E				
09/16/13 12:25	09/18/13 01:30	$\mathbf{S}$				
09/16/13 12:35	09/18/13 01:30					
09/16/13 12:45	09/18/13 01:30	0				
09/16/13 11:30	09/18/13 01:30					
09/16/13 10:45	09/18/13 01:30					
09/16/13 13:10	09/18/13 01:30					
09/16/13 13:35	09/18/13 01:30	8				
09/16/13 12:55	09/18/13 01:30					
09/16/13 14:55	09/18/13 01:30	9				
09/16/13 14:15	09/18/13 01:30					
09/16/13 13:30	09/18/13 01:30					
09/16/13 14:15	09/18/13 01:30					
09/16/13 14:30	09/18/13 01:30					
09/16/13 14:45	09/18/13 01:30					
09/16/13 15:20	09/18/13 01:30					
09/16/13 15:45	09/18/13 01:30					
09/16/13 15:50	09/18/13 01:30	11				
09/16/13 15:05	09/18/13 01:30	1				
09/16/13 08:35	09/18/13 01:30					

480-45969-7	WCSS-17-(0-0.25)	Solid	09/16/13 12:25	09/18/13 01:30
480-45969-8	WCSS-19-(0-0.25)	Solid	09/16/13 12:35	09/18/13 01:30
480-45969-9	WCSS-20-(0-0.25)	Solid	09/16/13 12:45	09/18/13 01:30
480-45969-10	WCSS-21-(0-0.25)	Solid	09/16/13 11:30	09/18/13 01:30
480-45969-11	WCSS-22-(0-0.25)	Solid	09/16/13 10:45	09/18/13 01:30
480-45969-12	WCSS-23-(0-0.25)	Solid	09/16/13 13:10	09/18/13 01:30
480-45969-13	WCSS-25-(0-0.25)	Solid	09/16/13 13:35	09/18/13 01:30
480-45969-14	WCSS-24-(0-0.25)	Solid	09/16/13 12:55	09/18/13 01:30
480-45969-15	WCSS-26-(0-0.25)	Solid	09/16/13 14:55	09/18/13 01:30
480-45969-16	WCSS-27-(0-0.25)	Solid	09/16/13 14:15	09/18/13 01:30
480-45969-17	WCSS-28-(0-0.25)	Solid	09/16/13 13:30	09/18/13 01:30
480-45969-18	WCSS-29-(0-0.25)	Solid	09/16/13 14:15	09/18/13 01:30
480-45969-19	WCSS-30-(0-0.25)	Solid	09/16/13 14:30	09/18/13 01:30
480-45969-21	WCSS-32-(0-0.25)	Solid	09/16/13 14:45	09/18/13 01:30
480-45969-22	WCSS-33-(0-0.25)	Solid	09/16/13 15:20	09/18/13 01:30
480-45969-23	WCSS-34-(0-0.25)	Solid	09/16/13 15:45	09/18/13 01:30
480-45969-24	WCSS-35-(0-0.25)	Solid	09/16/13 15:50	09/18/13 01:30
480-45969-25	WCSS-36-(0-0.25)	Solid	09/16/13 15:05	09/18/13 01:30
480-45969-28	WCSS-40-(0-0.25)	Solid	09/16/13 08:35	09/18/13 01:30
480-45969-29	WCSS-41-(0-0.25)	Solid	09/16/13 09:55	09/18/13 01:30
480-45969-30	WCSS-43-(0-0.25)	Solid	09/16/13 09:45	09/18/13 01:30
480-45969-31	WCSS-44-(0-0.25)	Solid	09/16/13 15:25	09/18/13 01:30
480-45969-32	WCSS-45-(0-0.25)	Solid	09/16/13 09:30	09/18/13 01:30
480-45969-36	WCSS-918-(0-0.25)	Solid	09/16/13 11:00	09/18/13 01:30
480-45969-37	WCEB-27-(0-0.25)	Water	09/16/13 14:25	09/18/13 01:30
480-45969-39	WCSS-935-(0-0.25)	Solid	09/16/13 15:00	09/18/13 01:30

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9/27/2013

Temperature on Receipt

TestAr



Drinking Water? Yes □ No □ THE LEADER IN EN 480-45969 Chain of Custody TAL-4124 (1007) Client Project Manager Decreased of Curran
95 Cadar St StelCO Anchrea Hevey
Telephone Number (Area Code)/Fáx Number 9/16/13 401-273-1007, Wahary Cuarda Cuiran Conh Analysis (Attach list if Site Contact more space is needed) Andrea Hever 07903 Project Name and Location (State) Carrier/Waybill Number Quincy-Intervale Special Instructions/ Conditions of Receipt Containers & Matrix Preservatives Sample I.D. No. and Description Date Time Sed. (Containers for each sample may be combined on one line) \* Fractions only for VPH \* TCLP analysis maybe exceled pending analytid 1700 RESULTS CONTACT THE PM X 1145 with poliminary motal 1150 1135 TCLP analyses 1105 LXSS-18-10-025 1100 WCSS-17-10-0.25 1225 WCSS-A-60-0-25 Possible Hazard Identification Sample Disposal (A fee may be assessed if samples are retained ☐ Flammable ☐ Skin Irritant Poison B ☑ Unknown Non-Hazard Return To Client Disposal By Lab Archive For \_ Months longer than 1 month) Turn Around Time Required OC Requirements (Specify) CAM methods required report to MCP S-1 Standards Dother 5 days ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days GISKEY & excel Glewith PDF report 1. Relinquished By 1. Receiyred By Time 2. Relinguished By : Time 1600 3. Relinquished By 3. Received By Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy















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Temperature on Receipt

**TestAmerica** 

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Drinking Water?	Yes□	No	THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)					/											
Client		Project M	· 1				_				Da		2/13		Ch	thain of Custody Number 238
Address & Curran	_			er (Area Coo		lumbar					//2	b Numbe	=//->_		+-	
Address Communication Communic		1 '		•	,		47	0 1	- 0			o ivumbe	,			age <u>Z</u> of <u>5</u>
Giy State Zip Co	nde	Site Cont	- 6 ( )	3-100	/ Ab Co	evey(	o iscoc	1200 CX C	zwrai	1 .CO	nalvsi	s (Attaci	h list if		] P	age or
Providence RI	500			Hevey	R	ricki l	Mason		t			ace is n				
Project Name and Location (State)		Carrier/W			1	<del>( )                                   </del>			\$ W			5				
Cuincy-Intervale, Quincy, Contract/Purchase Order/Quote No.	MS								3 3	X Z	K	इ				Special Instructions/
Contract/Purchase Order/Quote No.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_				Contair	ners &	- '			20	الإ		i		Conditions of Receipt
			, , , ,	Matrix		Presen	/atives			V /	ЪЧ	Δ				
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Aqueous	Sed.	Unpres. H2SO4	HNO3	NaOH ZnAC/ NaOH	看を及り	HC?	3 5	盘	<u> </u>				
(255-20-(0-0.75)	9/16/13	1245		X	X				(X							X Fractions only for UP
WCSS-21-(0-0.25)		1130		X	X			X	$\langle X \rangle$	X	X	$\perp \downarrow$				XTCLP analysis may be
LXSS-72-(0-0.25)		045		Х	X			X								Deceled paneling analytic
WSS-23-(0-0.25)		1310		X	X				( X )	×Х	X					results. Contact the PM
WCSS-25-(0-0-25)	- 1	335		X	X			XX	$\langle X \rangle$	< X	X	1-1	$\perp \perp$			with preliminary metals
- WSS 23- (0.25-0.75)				X	X			$\Rightarrow$	$\langle X  $	_		$\times$		_ @		data for TCIP analys
- LXSS 23-(0.75-1.0)					X	+		$  \rightarrow \rangle$	X	+	<b> </b>	$\times$	+	- 😢	2	determination HOLD
WSS-24-(0-0.25)	1	255			X	$\bot \bot$	11	X	Y				$\perp$	_ (5)		TCIP analyses
0- CXSS-24-(0-25-075)			_	X	X	++		++>							6	
9-125-74 (6.75-1.0)		-	+-	X	X	++		- 2	X	+		<b>X</b>	$\dashv$		<u>(5)</u>	
WCSS-26-(0-0.25)	1	1445		X	X	1	1	X		XX	X	$\dashv$	$\perp$	$\perp$		
Possible Hazard Identification	V 1	415	Samo	le Disposal				X		X X	X					
	Poison B	Unknown		eturn To Clie.	nt 🗆	Disposai	By Lah	$\Box$ $Aa$	chive Fo	r	/	Months	(A fee ma longer tha	ay be as:	sesse nth)	ed if samples are retained
Turn Around Time Required	<i>y</i>															v+ to MCPS-1 Standag
24 Hours 48 Hours 7 Days 14 Days	s 🗌 21 Days	Othe	<u> 50</u>	day				/	Tisk	بر براسة مريراسة	1 DU	~	City 1	254	, F	Date, Time
1. Relinquished By Broad V algli	^	Date ,	1/15	Time	1	Received	d By		T.4		1			<u> </u>		Date Time
2. Relinquished By	16	9/17	//3	Time /60	1	Received	1 By	17	$\overline{}$	-		TI	L		'	Date Time 9-18.13 0
3. Relinquished By		Date		Time		Received	d By								1	Date Time
Comments															L	
Comments													3.7	3.	Ι,	3.6 #1











Temperature on Receipt

**TestAmerica** 

Drinking Water? Yes □ No 💢

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)						/														
Client		Project Ma		1									1	Date	10		Chain of Custody Number			
Doodard Curran  Address  95 Coday St. Ste 100  City State Zipo  Providence RI O		Telephone	Air	Noa	Ho	001/									/13					
Address (								·	-0	2 -	000			ab Numbe	r		_	<b>'</b> Z		1
45 Ceday St. Ste 100	2	401-		-100		Contai		1000	<b>DEC.</b>	_	1) CEI	1. CC	1006	sis (Attacl	- link if		Page _	3	_ of _	7
City State Zip C	.oae 7903	Andi C		<i>(</i>				Maria	_	E				sis (Allaci space is ne						
Project Name and Location (State)	003	Carrier/Wa	CA M	umber		xc i	ky 1	wy	אין	8 8 8 8	2	K	1/2	12	T					
,	M 1-	Camentia	yom r <b>t</b> a	imber )			,			V	3/		7 1	(Q.)					, ,	/
Contract/Purchase Order/Quote No.	, 104						ontaine	rc 8		3	5	3 /	9 2	5				Special i Condition		
			Ma	atrix			reserva			(808)	7		3	الما				onanion	0,71	συσηρι
Sample I.D. No. and Description	Date 7	Time .	snoe	$\overline{}$	Unpres.	H2SO4	3	£ 25	£ 5	H.	3	بها ذ	A F	13						
(Containers for each sample may be combined on one line)	Date	Time \{	Aquec	Soil Soil	dus	HZ	HC/	NaOH ZnAc/	∑ 70	A	Σ.	<u> </u>	> #	1)~		$\perp \perp$				
WSS-28-10-0.25)	9/16/13 1	330		X	X				X	X	$\chi$		X				XFr	action	Soul	y for VPH
	77			X	J <sub>X</sub>					X	<b>/</b>			X						is may be
- W(SS 78 (0.25 - 0.75)							+ +	+		X		+		$\frac{1}{\sqrt{1-x}}$		6				,
- LXSS-28 = (0.75-10)			++	$\rightarrow \nearrow$	+	$\vdash$	+	-	+	7	<u> </u>	+	#							ing analytical
WSS-29-(0-0.75)	16	115		X	_ <u>X</u> _					X	X	$\perp$			$\bot$		(CS)	uts (	cute	K+HEPY
WCSS-30-(0-0.25)	j.	430		X	X					X	X						with	1 preli	mina	y motals
WSS-31-(0-0.75)	ic	535		$\times$	X						$\times$						da	ta for	TOU	analysis
WSS-3Z-(0-0.25)	14	145		X	X					Х	X						de	termin	atio	n HOLD
WSS-33-(0-0.75)	j	570		X	X				X	X	XX		X				_ I	LP au		
- WSS-33 (0.25 0.75)			-	X	$\rightarrow$				_	X	X	+-		X	++	(3)	'		7	-
- WS 33-(0.75 1.C)				X	-X				1	X				X		· (B)				
	ì	545							X	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			/ V			$\vdash$				
WCSS-34-(0-025)			-	$-\langle \cdot \rangle$	X		$\dashv$	-		Χ	X	XX	( X			++				
WSS-35-(0-0.75)	4 15	550			_  X				X	X	$\sum_{i}$	X Y	$\langle   X \rangle$							
Possible Hazard Identification	¬ ¬	i	,	Disposa											(A fee may	be asse	essed if sa	mples are	retained	•
	Poison B	Unknown	∐ Rei	turn To C	lient		sposal E							Months						
Turn Around Time Required  24 Hours	un Day Days	Other_	50	lass		QC H	requiren	ients (S	Specify											Standards
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Isner V. Cled	d'a	9/17/	15	102	B	1. He	The h	" <u>、</u> く		<b>#</b>	,	7	$A\zeta$	1			Pate	/1?	10	ن لر:
2. Relinquished by TA	-	9/17/	13	Time 16	00		ceived l	7	J	7	Ĺ-	~		I	Ju-		Date	6.7		70
3. Relinquished By		Date		Time		3. Re	ceived L	3y									Date		Time	
Comments						_														
Comments															2 7	3 /	> :	441		











Page 43 of 45

Temperature on Receipt

**TestAmerica** 

Drinking Water? Yes □ No 🛛

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)													
Client	Project Manag							D	ate	1 1		Chain of Custody	Vumber
Address 95 Ceclar St, Stc 100 City State Zip Code		brea He	- 1							116/12		<u>238</u> 3	<u> </u>
Address	Telephone Nu	mber (Area Cod	de)/Fax Nun	nber	, ,				ab Numi	ber '		11	
Gity St. St. 100	401-27	3-1007,	anere	y Ewood	clarol	Cura	n.co	4	1- /44-	-6-11-11		Page	_ of _5
City State Zip Code PI	Site Contact	- 11 - 3-41	Lab Conta			$\widehat{\mathcal{F}}$				nch list if needed)			
Project Name and Location (State)	Carrier/Waybii	a Hevry	LEC	Ky Ma	50°	<b>\(\frac{1}{2}\)</b>					TT		
	Carrier/Waybii	rvumber		,		3	( Q )	CENTER (FEXTER)	retals				
Cruincy-Intervale, Chincy, MA						2 3	25/5/2	3 3	الأر				Instructions/ ns of Receipt
Community and a contract of the contract of th		Matrix		Containers & Preservative	1	8		グに	<i></i>			Conditio	is of neceipt
Sample I.D. No. and Description (Containers for each sample may be combined on one line)  Date	Time i	Sed.	Unpres. H2SO4	HNO3 HCI NaOH	ZnAc/ NaOH FCCH	RE(82)	23/2	は立	2				
1255-36-(0-025) 9/16/13	1505	X	Х			XX						X Fraction	is only for VPH
LX55-35-(0-025)	935	X	X			X						* ELPan	alysis may be
W.SS- 39- (0-0.25)	815	X	X			Х						nadad	pending awild
WSS-40-(0-0.75)	835	X	X		X		X X	X			$\perp \perp$	esutts.	Contact fix A
-DCS-40-(075-075)		X	X			XX		+-	X		- @	will po	immany motal
-WCS-40-(0-75-10)		X	X			$\times$	+	$\pm$	$\times$		(3)		TCLPanys
WS5-41-10-0.25\	955		X			XX						determin	ation. Hall
WCSS-43-(0-0.75)	945	X	X			XX						TCLP	walyses
1X55-44-60-0.75)	1525	X	X		X	XX	XX	X			$\perp \perp$		
- WCSS-44 (0.25-0.75)		+	X			XX	++	+-	$\times$		(6)		
- WCS 44-(0.75-1.0)		<del>-   X   -</del>	+			XX			X	1 1 1	(ES)		
IXSS - 45 - (0 - 0.75)  Possible Hazard Identification	930	X	X			$\times \times$					$\bigcup$		
		mple Disposal	_							(A fee may	be asses	ssed if samples are	retained
	Unknown	Return To Clies		isposal By La						longer than			
Turn Around Time Required	N	- 20.15	QC F	Requirements	s (Specify)	CA	M M	Ho	ols f	egetivas	, rep	out to MCF	S-1 Standard
24 Hours 48 Hours 7 Days 14 Days 21 Day		vays				GI	SK-y	4 :	Exce	Clike	wit	4 PDF CE	port
1. Relinquished By Broad V Aight	Date   7/1-/1	2 102	3	eceived By	2		,	JA	l			9/13	10 de
2. Relinquished By TA	9/17/1	3 Time	0 2. 86	eceived By	H			/	TM	_		Date 7. 13	Time Oisb
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Temperature on Receipt \_\_\_\_\_

# <u>TestAmerica</u>

Drinking Water?	Yes $\square$	No 🔯
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THE LEADER IN ENVIRONMENTAL TESTING

IAL-4124 (1007)		16 .										-	0-4			10				
Client  Docalant & Curran  Address  95 Coclar St, Stc 100  City State Zipo  Provenie por Primary Prima		1 '	Project Manager  Avoliza Hevry  Telephone Number (Area Code)/Fax/Number  Date  9/16/13  Lab Number											Chá	un of Ci	Sustody 1	Vumber 2.7			
Address		Tolonh	no Num	WECK )	HOU'C	y Numb	ıer						I ah Mi	//6/1	5_	-		100 C	<u> </u>	
GE Cools of St. 100								<i>2</i>	1	1.				ilbei		Pa		5	_ of _	5
$\frac{1}{\text{City}} \frac{\text{City}}{\text{City}} \frac{1}{\text{State}} \frac{1}{\text{Zip } 0}$	Code	Site Co	ntact	3-100	Lab	Contact	t	in	<b>B</b> CHO	<u>OCO</u>	uVC	<u>२८१ - CC</u> 4 Anal	vsis (Ati	tach list i	if	Pa	ge	<u> </u>	_ 01 _	
Providence RI C	77903			Here	/ 6	Seck	G 1	Mas	5010					s neede						
Project Name and Location (State)		Carrier	Waybill i	Number /		7	<i></i>	۹,	21	7		16/2	-							
Contract/Purchase Order/Quote No.	ncyMA									1 80							S	pecial	Instructi	ions/
Contract/Purchase Order/Quote No.				Matrix			ntaine			2808	(2/6/2)	2 2 2	ડુ				,		ns of Re	
				ivialiix			serva	atives		8 6	١,	ノヤンド	7							
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air Aqueous	Sed.	Unpres.	H2SO4 HNO3	HC	NaOH ZnAc/	NaOH	PC35		3 = 6								
1255-46-(0-0.75)	9/16/13	910		X	X					$\mid \mid \rangle$			$\downarrow \downarrow$							
1XSS-47-(0-0.25)		755		X	X															
WSS-48-(0-0.75)		730		X	$\bot$ X				$\perp$			$\perp$	$\perp \perp$			$\perp \perp$				
WSS-47-(0-0.25) MS		755		X	X					X	$\overline{}$					11/	MS:	Mati	TX Sp	ike
WCSS-47-(0-0.75) MSD		755		X	X					$\square$						$\perp \perp$	MSt	5: i4	atrix	Spikel
WSS-918-(0-0.75)		ji00		X	X					X										
LXSS-16-(0-0.25)MS		1i05		X	X					X	-		$\perp \perp$							
WCSS-16-(0-0.25) MSD		1105		X	Х					>						$\perp \perp$				
LXEB-27-6-0-25)		1425	X	+	X					X										
TB-09/62013	<b>V</b>	1200	Х				X				X									
10(55-935-(c-0.25)	9/16/13	1550		X	X		$\perp$			X										
	, ,																			
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	Poison B	J Unknown	,	Return To Ci	lient	Disp								s longe	er thán 1 m	onth)		-		
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DIOTRICUTION. WILLIES OF	044481/ 01		_,	W. 5: 1: 3											J. 7,	2.	, 5.	6	17	









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# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-45969-2

Login Number: 45969 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Answer	Comment
True	
True	
True	
True	
True	
True	
True	
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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-45969-1

Client Project/Site: Quincy Inervale

Revision: 1

For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

h Masen

Authorized for release by: 10/14/2013 12:48:53 PM

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Qualifier Description** 

TestAmerica Job ID: 480-45969-1

### **Qualifiers**

### **GC/MS VOA**

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC VOA	

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### **GC Semi VOA**

Qualifier

^	IOV COVICE COR ICA ICE CRI CRA DI CV MEL standard, Instrument related CC succeeds the control limite
Qualifier	Qualifier Description
Metals	
Χ	Surrogate is outside control limits
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Qualifier	Qualifier Description
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
L	A negative instrument reading had an absolute value greater than the reporting limit
F	MS/MSD Recovery and/or RPD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

### **Glossary**

Appreviation	These commonly used appreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Buffalo

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### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

#### Job ID: 480-45969-1

#### Laboratory: TestAmerica Buffalo

#### Narrative

Revised report: All soil units that were reporting as ug/Kg have been changed to mg/Kg per client request. This report replaces final report from 9/23/13.

#### Receipt

The samples were received on 9/18/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.1° C, 3.6° C and 3.7° C.

The following samples were preserved via freezing on 9/18/2013 at 04:15: WCSS-17-(0-0.25) (480-45969-7), WCSS-21-(0-0.25) (480-45969-10), WCSS-23-(0-0.25) (480-45969-12), WCSS-25-(0-0.25) (480-45969-13), WCSS-26-(0-0.25) (480-45969-15), WCSS-27-(0-0.25) (480-45969-16), WCSS-28-(0-0.25) (480-45969-17), WCSS-33-(0-0.25) (480-45969-22), WCSS-34-(0-0.25) (480-45969-23), WCSS-35-(0-0.25) (480-45969-24), WCSS-40-(0-0.25) (480-45969-28), WCSS-44-(0-0.25) (480-45969-31) . This is within the 48 hour timeframe required by the method.

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) for Acetone, 1,2-Dibromo-3-chloropropane and Dichlorodifluoromethane associated with batch 139838 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method 8260C: The continuing calibration verification (CCV) for 1,4-Dioxane associated with batch 139838 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batchs 139971, 140106 and 139838 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample.

Method 8260C: The continuing calibration verification (CCV) for 1,2,3-Trichlorobenzene associated with batch 139971 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method 8260C: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 139971 recovered outside control limits for the following analytes: 1,4-Dioxane.

Method 8260C: The method blank for preparation batch 139971 contained Methylene chloride above the reporting limit (RL). MCP protocol allows for common lab contaminants to have positive detections up to 5 times the reporting limit. None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8260C: The continuing calibration verification (CCV) for Acetone associated with batch 140106 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Metho 8260C: The continuing calibration verification (CCV) for 1,4-Dioxane associated with batch 140106 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference or 60% difference for difficult analytes.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: WCSS-26-(0-0.25) (480-45969-15). Elevated reporting limits (RLs) are provided.

With the exception of diluted samples and adjustments made for % solids or insufficient sample mass, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-Dibromo-3-Chloropropane, Naphthalene, & Tetrahydrofuran.

No other analytical or quality issues were noted.

GC VOA

TestAmerica Buffalo 10/14/2013

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Job ID: 480-45969-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

Method MAVPH: The dilution for the following sample is based upon a large single peak that falls within the C9-C12 range WCSS-28-(0-0.25) (480-45969-17).

Method MAVPH: The following sample are diluted to bring the concentration of target analytes within the calibration range: WCSS-17-(0-0.25) (480-45969-7), WCSS-25-(0-0.25) (480-45969-13), WCSS-26-(0-0.25) (480-45969-15), WCSS-34-(0-0.25) (480-45969-23), WCSS-44-(0-0.25) (480-45969-31), WCSS-23-(0-0.25) (480-45969-12), WCSS-28-(0-0.25) (480-45969-17). Elevated reporting limits (RLs) are provided.

At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No other analytical or quality issues were noted.

#### GC Semi VOA

Method MA-EPH: Surrogate recovery (o-Terphenyl and 1-Chlorooctadecane) in the following samples was outside control limits: WCSS-21-(0-0.25) (480-45969-10), WCSS-23-(0-0.25) (480-45969-12), WCSS-28-(0-0.25) (480-45969-17), WCSS-33-(0-0.25) (480-45969-22), WCSS-40-(0-0.25) (480-45969-28). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method MA-EPH: Surrogate recovery of 1- Chlorooctadecane for the following sample was outside control limits: WCSS-27-(0-0.25) (480-45969-16), WCSS-34-(0-0.25) (480-45969-23). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol; however they do achieve method 1 S1 standards.

No other analytical or quality issues were noted.

#### Metals

Method 6010: The CRI (CRI 480-139946/8) exhibited a result outside the project established contol limits for total lead. However, the result was within TestAmerica's standard quality control limits, therefore no corrective action was necessary.

Method 6010: The ICSA (ICSA 480-139946/9) exhibited a result outside the project established contol limits for total antimony. However, the result was within TestAmerica's standard quality control limits, therefore no corrective action was necessary.

Method 6010: The Method Blank for batch 480-139644 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples WCSS-30-(0-0.25) (480-45969-19), WCSS-31-(0-0.25) (480-45969-20), WCSS-32-(0-0.25) (480-45969-21), WCSS-33-(0-0.25) (480-45969-22), WCSS-34-(0-0.25) (480-45969-23), WCSS-35-(0-0.25) (480-45969-24), WCSS-36-(0-0.25) (480-45969-25), WCSS-38-(0-0.25) (480-45969-26), WCSS-39-(0-0.25) (480-45969-27), WCSS-40-(0-0.25) (480-45969-28), WCSS-41-(0-0.25) (480-45969-29), WCSS-43-(0-0.25) (480-45969-30), WCSS-44-(0-0.25) (480-45969-31), WCSS-45-(0-0.25) (480-45969-32), WCSS-46-(0-0.25) (480-45969-33), WCSS-47-(0-0.25) (480-45969-34), WCSS-48-(0-0.25) (480-45969-35) was not performed.

Method 6010: The method blank for batch 480-139644 contained total selenium above the client detection limit. This target analyte concentration was less than the laboratory standard reporting limit (RL); therefore, re-extraction and/or re-analysis of samples WCSS-30-(0-0.25) (480-45969-19), WCSS-31-(0-0.25) (480-45969-20), WCSS-32-(0-0.25) (480-45969-21), WCSS-33-(0-0.25) (480-45969-22), WCSS-34-(0-0.25) (480-45969-23), WCSS-35-(0-0.25) (480-45969-24), WCSS-36-(0-0.25) (480-45969-25), WCSS-38-(0-0.25) (480-45969-26), WCSS-39-(0-0.25) (480-45969-27), WCSS-40-(0-0.25) (480-45969-28), WCSS-41-(0-0.25) (480-45969-29), WCSS-43-(0-0.25) (480-45969-30), WCSS-44-(0-0.25) (480-45969-31), WCSS-45-(0-0.25) (480-45969-32), WCSS-46-(0-0.25) (480-45969-33), WCSS-47-(0-0.25) (480-45969-34), WCSS-48-(0-0.25) (480-45969-35) was not performed.

Method 6010: The Matrix Spike Duplicate (WCSS-47-(0-0.25) MSD (480-45969-34 MSD)) recoveries for total lead and zinc in batch 480-139644 were outside control limits. Sample matrix is suspected. The associated Laboratory Control Sample (LCS) met acceptance criteria, therefore no corrective action was necessary.

Project/Site: Quincy Inervale

### Job ID: 480-45969-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

Method 6010: The following sample was diluted due to the presence of total iron which interferes with silver, nickel, lead, and vandium: WCSS-36-(0-0.25) (480-45969-25). Elevated reporting limits (RLs) are provided.

Method 6010: The following samples was diluted to bring the concentration of target analyte total zinc within the linear range of the instrument: WCSS-41-(0-0.25) (480-45969-29), WCSS-44-(0-0.25) (480-45969-31), WCSS-46-(0-0.25) (480-45969-33), WCSS-11-(0-0.25) (480-45969-1), WCSS-18-(0-0.25) (480-45969-6). Elevated reporting limits (RLs) are provided.

Method 6010: The following sample was diluted due to the presence of total iron which interferes with silver, nickel, lead, and vandium: WCSS-44-(0-0.25) (480-45969-31), WCSS-27-(0-0.25) (480-45969-16). Elevated reporting limits (RLs) are provided.

Method 6010: The CRI (CRI 480-139953/8) exhibited a result outside the project established contol limits for total lead. However, the result was within TestAmerica's standard quality control limits, therefore no corrective action was necessary.

Method 6010: The ICSA (ICSA 480-139953/9) exhibited a result outside the project established contol limits for total antimony. However, the result was within TestAmerica's standard quality control limits, therefore no corrective action was necessary.

Method 6010: The Method Blank for batch 480-139642 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples WCSS-11-(0-0.25) (480-45969-1), WCSS-13-(0-0.25) (480-45969-2), WCSS-14-(0-0.25) (480-45969-3), WCSS-15-(0-0.25) (480-45969-4), WCSS-16-(0-0.25) (480-45969-5), WCSS-17-(0-0.25) (480-45969-7), WCSS-18-(0-0.25) (480-45969-6), WCSS-19-(0-0.25) (480-45969-8), WCSS-20-(0-0.25) (480-45969-9), WCSS-21-(0-0.25) (480-45969-10), WCSS-22-(0-0.25) (480-45969-11), WCSS-23-(0-0.25) (480-45969-12), WCSS-24-(0-0.25) (480-45969-14), WCSS-25-(0-0.25) (480-45969-13), WCSS-26-(0-0.25) (480-45969-15), WCSS-27-(0-0.25) (480-45969-16), WCSS-28-(0-0.25) (480-45969-17), WCSS-29-(0-0.25) (480-45969-18) was not performed.

Method 6010: The Serial Dilution (480-45969-5 SD) in batch 480-139642, exhibited a result outside the quality control limits for total barium. However, the Post Digestion Spike was compliant so no corrective action was necessary

Method 6010: The Matrix Spike/ Matrix Spike Duplicate (WCSS-16-(0-0.25) MS (480-45969-5 MS), WCSS-16-(0-0.25) MSD (480-45969-5 MSD)) recoveries for total barium and chromium in batch 480-139642 were outside control limits. Sample matrix is suspected. The associated Laboratory Control Sample (LCS) met acceptance criteria, therefore no corrective action was necessary.

Method 6010: The Matrix Spike / Matrix Spike Duplicate (WCSS-16-(0-0.25) MS (480-45969-5 MS), WCSS-16-(0-0.25) MSD (480-45969-5 MSD)) precision for batch 480-139642 was outside control limits for total barium, chromium, and lead. Non-homogeneity of the sample matrix is suspected. The associated Laboratory Control Sample met acceptance criteria, therefore, no corrective action was necessary.

Method 6010: The following sample was diluted to bring the concentration of target analytes total barium, lead, and zinc within the linear range of the instrument: WCSS-23-(0-0.25) (480-45969-12). Elevated reporting limits (RLs) are provided.

Method 6010: The following sample was diluted due to the presence of total iron which interferes with silver, nickel, lead, and vanadium: WCSS-27-(0-0.25) (480-45969-16). Elevated reporting limits (RLs) are provided.

Method 7471A: The following samples were diluted to bring the concentration of the target analyte total mercury within the calibration range: WCSS-11-(0-0.25) (480-45969-1), WCSS-13-(0-0.25) (480-45969-2), WCSS-14-(0-0.25) (480-45969-3), WCSS-15-(0-0.25) (480-45969-4), WCSS-16-(0-0.25) (480-45969-5), WCSS-18-(0-0.25) (480-45969-6), WCSS-20-(0-0.25) (480-45969-9), WCSS-21-(0-0.25) (480-45969-10), WCSS-22-(0-0.25) (480-45969-11), WCSS-23-(0-0.25) (480-45969-12), WCSS-24-(0-0.25) (480-45969-14), WCSS-25-(0-0.25) (480-45969-13), WCSS-29-(0-0.25) (480-45969-18), WCSS-33-(0-0.25) (480-45969-22), WCSS-34-(0-0.25) (480-45969-23), WCSS-36-(0-0.25) (480-45969-25), WCSS-40-(0-0.25) (480-45969-28), WCSS-41-(0-0.25) (480-45969-29), WCSS-43-(0-0.25) (480-45969-30), WCSS-44-(0-0.25) (480-45969-31), WCSS-45-(0-0.25) (480-45969-32), WCSS-46-(0-0.25) (480-45969-33). Elevated reporting limits (RLs) are provided.

Method 7471A: The Matrix Spike/ Matrix Spike Duplicate (MS/MSD) recoveries for total mercury in batch 139623 were outside control limits. The associated Laboratory Control Sample (LCS) recovery met acceptance criteria, therefore no corrective action was necessary.

Method 7471A: The CRA 480-139797/104 exhibited results below the project established contol limits for total mercury. However, the results were within TestAmerica"s standard quality control limits, therefore no corrective action was necessary.

### **Case Narrative**

TestAmerica Job ID: 480-45969-1

Client: Woodard & Curran Inc

Project/Site: Quincy Inervale

Job ID: 480-45969-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No other analytical or quality issues were noted.

**Organic Prep** 

No analytical or quality issues were noted.

MassDEP Analytical Protocol Certification Form											
Lahor	atory Name:		rica Buffalo			9_1					
Project Location: Quincy				Projec	<del>3-</del> 1						
	•										
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): I80-45969-1[1-39-]											
	Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:										
CAM	AM Protocols (check all that apply below):										
3260 \		7470/7471 Hg	Mass DEP VF	Ч	8081 Pesticides	3	7196 Hex Cr	Mass DEF	P APH		
CAM I		CAM III B		X	CAM V B		CAM VI B	CAM IX A			
3270 ( CAM I	SVOC	6010 Metals CAM III C	Mass DEP EF	_	8151 Herbicides	S □	8330 Explosives CAM VIII A	TO-15 VC CAM IX B		, l	
JAIVI I	пь Ц	CAM III C X	CAIVITY B	<u>IXI</u>	9014 Total		CAW VIII A	CAWIX		_	
	Metals	6020 Metals	8082 PCB		Cyanide/PAC	_	6860 Perchlorate				
CAM		CAM III D	CAM V A	<u> </u>	CAM VI A	<u></u>	CAM VIII B				
							Presumptive Certainty" st	atus I			
		•					d on the Chain-of-Custody, d prepared/analyzed within				
	method hold		omporataro) iir t		na or laboratory,	un	a proparod/arialy200 millim	X Yes		No	
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?									No	
	Were all required corrective actions and analytical response actions specified in the selected CAM										
	. ,	nplemented for all						X Yes		No	
D							pecified in CAM VII A, and Reporting of Analytical				
	Data"?							X Yes		No	
		I and APH Method (s)? (Refer to the in						X Yes		No	
					_		d for each method?	Yes		No	
F							onformances identified and		$\Box$	:	
							stions A through E)? sumptive Certainty" status	XYes		No	
•	•						n the selected CAM				
G	protocol(s)?							L Yes	X N	No <sup>1</sup>	
		Pata that achieve "F requirements desc					essarily meet the data usabi -07-350	lity and			
_		performance stan			( )( )			Yes	X	No <sup>1</sup>	
							eted CAM protocol(s) ?	Yes	=	No <sup>1</sup>	
		onses must be add									
							oon my personal inquiry of the		sible fo	or	
	urate and co	•									
Signat	ture:	Ru Ma	Den		Positi	on:	Project Mar	nager			
Printe	d Name:		y Mason		Da	ate:	9/23/13 16	6:22			
his for	m has been elec	ctronically signed and a	approved		=						

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-2

Lab Sample ID: 480-45969-3

Lab Sample ID: 480-45969-4

Client Sample ID: WCSS-11-(0-0.25)	Lab Sample ID: 480-45969-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	23.8		1.20	0.481	mg/Kg		₩	6010	Total/NA
Barium	384		0.602	0.132	mg/Kg	1	₩	6010	Total/NA
Cadmium	9.17		0.241	0.0361	mg/Kg	1	₩	6010	Total/NA
Chromium	102		0.602	0.241	mg/Kg	1	₩	6010	Total/NA
Silver	1.07		0.602	0.241	mg/Kg	1	₩	6010	Total/NA
Lead	986	۸	0.602	0.289	mg/Kg	1	₩	6010	Total/NA
Selenium	3.28		0.602	0.481	mg/Kg	1	₩	6010	Total/NA
Antimony	1.96	^	0.602	0.481	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.603		0.241	0.0337	mg/Kg	1	₽	6010	Total/NA
Nickel	495		1.20	0.277	mg/Kg	1	₩.	6010	Total/NA
Vanadium	54.0		0.602	0.132	mg/Kg	1	₽	6010	Total/NA
Zinc	2820	В	6.02	0.368	mg/Kg	2	₽	6010	Total/NA
Mercury	1.77		0.549	0.0444	mg/Kg	5	₩.	7471A	Total/NA

# Client Sample ID: WCSS-13-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.22		1.26	0.506	mg/Kg	1	₩	6010	Total/NA
Barium	73.3		0.632	0.139	mg/Kg	1	₽	6010	Total/NA
Cadmium	2.77		0.253	0.0379	mg/Kg	1	₽	6010	Total/NA
Chromium	72.8		0.632	0.253	mg/Kg	1	₽	6010	Total/NA
Lead	1320	^	0.632	0.304	mg/Kg	1	₽	6010	Total/NA
Selenium	1.36		0.632	0.506	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.196	J	0.253	0.0354	mg/Kg	1	₽	6010	Total/NA
Thallium	2.04		1.26	0.379	mg/Kg	1	₩	6010	Total/NA
Nickel	79.4		1.26	0.291	mg/Kg	1	₽	6010	Total/NA
Vanadium	291		0.632	0.139	mg/Kg	1	₩	6010	Total/NA
Zinc	742	В	3.16	0.194	mg/Kg	1	₩	6010	Total/NA
Mercury	61.0		11.6	0.943	mg/Kg	100	₽	7471A	Total/NA

### Client Sample ID: WCSS-14-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.46		1.19	0.477	mg/Kg	1	₩	6010	Total/NA
Barium	60.5		0.596	0.131	mg/Kg	1	₩	6010	Total/NA
Cadmium	7.43		0.238	0.0358	mg/Kg	1	₽	6010	Total/NA
Chromium	15.4		0.596	0.238	mg/Kg	1	₽	6010	Total/NA
Lead	164	^	0.596	0.286	mg/Kg	1	₩	6010	Total/NA
Selenium	1.03		0.596	0.477	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.197	J	0.238	0.0334	mg/Kg	1	₽	6010	Total/NA
Nickel	38.0		1.19	0.274	mg/Kg	1	₩	6010	Total/NA
Vanadium	13.4		0.596	0.131	mg/Kg	1	₩	6010	Total/NA
Zinc	1770	В	2.98	0.182	mg/Kg	1	φ.	6010	Total/NA
Mercury	2.27		1.15	0.0933	mg/Kg	10	₽	7471A	Total/NA

# Client Sample ID: WCSS-15-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.81		1.08	0.434	mg/Kg	1	₩	6010	Total/NA
Barium	22.4		0.542	0.119	mg/Kg	1	₩	6010	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

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Client Sample ID: WCSS-15-(0-0.25) (Continued)

Lab Sample ID: 480-45969-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.433		0.217	0.0325	mg/Kg	1	₩	6010	Total/NA
Chromium	11.5		0.542	0.217	mg/Kg	1	₩	6010	Total/NA
Lead	58.9	^	0.542	0.260	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.216	J	0.217	0.0304	mg/Kg	1	₽	6010	Total/NA
Nickel	11.7		1.08	0.249	mg/Kg	1	₩	6010	Total/NA
Vanadium	10.6		0.542	0.119	mg/Kg	1	₩	6010	Total/NA
Zinc	88.1	В	2.71	0.166	mg/Kg	1	₽	6010	Total/NA
Mercury	0.100		0.0941	0.00762	mg/Kg	1	φ.	7471A	Total/NA

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Client Sample ID: WCSS-16-(0-0.25)

Lab Sample ID: 480-45969-5

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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.12		1.09	0.437	mg/Kg	1	₩	6010	Total/NA
Barium	101		0.547	0.120	mg/Kg	1	₽	6010	Total/NA
Cadmium	2.34		0.219	0.0328	mg/Kg	1	₽	6010	Total/NA
Chromium	41.7		0.547	0.219	mg/Kg	1	₩	6010	Total/NA
Lead	484	^	0.547	0.262	mg/Kg	1	₽	6010	Total/NA
Selenium	1.16		0.547	0.437	mg/Kg	1	₽	6010	Total/NA
Antimony	2.50	^	0.547	0.437	mg/Kg	1	\$	6010	Total/NA
Beryllium	0.543		0.219	0.0306	mg/Kg	1	₽	6010	Total/NA
Nickel	50.5		1.09	0.252	mg/Kg	1	₽	6010	Total/NA
Vanadium	19.2		0.547	0.120	mg/Kg	1	₽	6010	Total/NA
Zinc	957	В	2.73	0.167	mg/Kg	1	₽	6010	Total/NA
Mercury	0.868		0.546	0.0442	mg/Kg	5	₽	7471A	Total/NA

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Client Sample ID: WCSS-18-(0-0.25)

Lab Sample ID: 480-45969-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.70		1.08	0.432	mg/Kg	1	₩	6010	Total/NA
Barium	990		0.540	0.119	mg/Kg	1	₽	6010	Total/NA
Cadmium	13.6		0.216	0.0324	mg/Kg	1	₽	6010	Total/NA
Chromium	54.4		0.540	0.216	mg/Kg	1	₩	6010	Total/NA
Silver	1.29		0.540	0.216	mg/Kg	1	₽	6010	Total/NA
Lead	3400	^	0.540	0.259	mg/Kg	1	₽	6010	Total/NA
Selenium	1.58		0.540	0.432	mg/Kg	1	₽	6010	Total/NA
Antimony	18.5	^	0.540	0.432	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.784		0.216	0.0302	mg/Kg	1	₽	6010	Total/NA
Nickel	130		1.08	0.248	mg/Kg	1	₽	6010	Total/NA
Vanadium	25.1		0.540	0.119	mg/Kg	1	₽	6010	Total/NA
Zinc	3190	В	5.40	0.331	mg/Kg	2	₩	6010	Total/NA
Mercury	72.8		10.8	0.873	mg/Kg	100	₩.	7471A	Total/NA

Client Sample ID: WCSS-17-(0-0.25)

Lab Sample ID: 480-45969-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	0.0845	J	1.40	0.0561	mg/Kg	5	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.0845	J	1.16	0.0462	mg/Kg	5	₽	MAVPH	Total/NA
C9-C10 Aromatics	1.70		1.16	0.0462	mg/Kg	5	₩	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	1.23		1.16	0.0462	mg/Kg	5	₽	MAVPH	Total/NA
Anthracene	0.164	J	0.535	0.102	mg/Kg	1	₩	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-7

Client Sample	ID: WCSS-17-	(0-0.25) (	Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	1.07		0.535	0.0813	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]pyrene	1.49		0.535	0.0770	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	1.88		0.535	0.0760	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	1.22	В	0.535	0.0909	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene	0.890		0.535	0.0781	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	1.39		0.535	0.0952	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	0.690	В	0.535	0.0749	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	1.97		0.535	0.0942	mg/Kg	1	₩	MA-EPH	Total/NA
Fluorene	0.180	J	0.535	0.107	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	1.25	В	0.535	0.0781	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	1.06	В	0.535	0.107	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	1.93		0.535	0.0974	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	51.4	В	5.35	2.14	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	21.2		5.35	2.14	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	2.16	J	5.35	2.14	mg/Kg	1	₩	MA-EPH	Total/NA
Arsenic	3.68		1.14	0.456	mg/Kg	1	₽	6010	Total/NA
Barium	30.4		0.570	0.125	mg/Kg	1	₩	6010	Total/NA
Cadmium	0.199	J	0.228	0.0342	mg/Kg	1	₩	6010	Total/NA
Chromium	8.24		0.570	0.228	mg/Kg	1	₽	6010	Total/NA
Lead	99.4	^	0.570	0.274	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.228		0.228	0.0319	mg/Kg	1	₩	6010	Total/NA
Nickel	6.94		1.14	0.262	mg/Kg	1	₩	6010	Total/NA
Vanadium	16.7		0.570	0.125	mg/Kg	1	₩.	6010	Total/NA
Zinc	68.4	В	2.85	0.174	mg/Kg	1	₩	6010	Total/NA
Mercury	0.0836	J	0.115	0.00930	mg/Kg	1	₩	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	36.2		5.61	5.61	mg/Kg	1	₩	MA-EPH	Total/NA

#### Client Sample ID: WCSS-19-(0-0.25)

# Lab Sample ID: 480-45969-8

Lab Sample ID: 480-45969-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.08		1.14	0.455	mg/Kg	1	₩	6010	Total/NA
Barium	65.3		0.569	0.125	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.697		0.227	0.0341	mg/Kg	1	₽	6010	Total/NA
Chromium	12.5		0.569	0.227	mg/Kg	1	₩	6010	Total/NA
Lead	239	^	0.569	0.273	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.803		0.227	0.0318	mg/Kg	1	₽	6010	Total/NA
Nickel	15.1		1.14	0.262	mg/Kg	1	₩	6010	Total/NA
Vanadium	20.9		0.569	0.125	mg/Kg	1	₽	6010	Total/NA
Zinc	213	В	2.84	0.174	mg/Kg	1	₽	6010	Total/NA
Mercury	0.363		0.0979	0.00793	mg/Kg	1	φ.	7471A	Total/NA

#### Client Sample ID: WCSS-20-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	29.8		1.16	0.465	mg/Kg	1	₩	6010	Total/NA
Barium	310		0.581	0.128	mg/Kg	1	₩	6010	Total/NA
Cadmium	18.5		0.232	0.0349	mg/Kg	1	₽	6010	Total/NA
Chromium	48.0		0.581	0.232	mg/Kg	1	Ċ.	6010	Total/NA
Silver	0.714		0.581	0.232	mg/Kg	1	₩	6010	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-20-(0-0.25) (Continued)

Client Sample ID: WCSS-21-(0-0.25)

## Lab Sample ID: 480-45969-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	3280	^	0.581	0.279	mg/Kg	1	₩	6010	Total/NA
Selenium	2.37		0.581	0.465	mg/Kg	1	₩	6010	Total/NA
Antimony	3.56	^	0.581	0.465	mg/Kg	1	₩	6010	Total/NA
Beryllium	1.14		0.232	0.0325	mg/Kg	1	₽	6010	Total/NA
Nickel	256		1.16	0.267	mg/Kg	1	₩	6010	Total/NA
Vanadium	34.8		0.581	0.128	mg/Kg	1	₩	6010	Total/NA
Zinc	1950	В	2.91	0.178	mg/Kg	1	₽	6010	Total/NA
Mercury	3.65		1.11	0.0899	ma/Ka	10	₩.	7471A	Total/NA

### Lab Sample ID: 480-45969-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	0.0552	J	0.263	0.0105	mg/Kg	1	₩	MA VPH	Total/NA
C9-C12 Aliphatics (adjusted)	0.0591	J	0.263	0.0105	mg/Kg	1	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.0636	J	0.144	0.00576	mg/Kg	1	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.319		0.144	0.00576	mg/Kg	1	₩	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.383		0.144	0.00576	mg/Kg	1	₽	MAVPH	Total/NA
Anthracene	0.193	J	0.495	0.0941	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]anthracene	0.706		0.495	0.0753	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]pyrene	1.17		0.495	0.0713	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	1.34		0.495	0.0703	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[g,h,i]perylene	0.876	В	0.495	0.0842	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene	0.652		0.495	0.0723	mg/Kg	1	₽	MA-EPH	Total/NA
Chrysene	0.999		0.495	0.0881	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	0.644	В	0.495	0.0693	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	1.90		0.495	0.0872	mg/Kg	1	₩	MA-EPH	Total/NA
Fluorene	0.163	J	0.495	0.0990	mg/Kg	1	₽	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	0.947	В	0.495	0.0723	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.929	В	0.495	0.0990	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	1.27		0.495	0.0901	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	44.8	В	4.95	1.98	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	54.4		4.95	1.98	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	3.73	J	4.95	1.98	mg/Kg	1	₩	MA-EPH	Total/NA
Arsenic	5.91		0.954	0.382	mg/Kg	1	₽	6010	Total/NA
Barium	75.5		0.477	0.105	mg/Kg	1	₽	6010	Total/NA
Cadmium	4.53		0.191	0.0286	mg/Kg	1	₽	6010	Total/NA
Chromium	305		0.477	0.191	mg/Kg	1	₽	6010	Total/NA
Silver	0.825		0.477	0.191	mg/Kg	1	₽	6010	Total/NA
Lead	418	^	0.477	0.229	mg/Kg	1	₽	6010	Total/NA
Selenium	1.93		0.477	0.382	mg/Kg	1	₽	6010	Total/NA
Antimony	4.66	^	0.477	0.382	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.461		0.191	0.0267	mg/Kg	1	₽	6010	Total/NA
Nickel	100		0.954	0.220	mg/Kg	1	₽	6010	Total/NA
Vanadium	29.5		0.477	0.105	mg/Kg	1	₽	6010	Total/NA
Zinc	596	В	2.39	0.146	mg/Kg	1	₽	6010	Total/NA
Mercury	1.30		0.485	0.0393	mg/Kg	5	₽	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	33.1		5.26		mg/Kg		₩	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-22-(0-0.25)

Lab Sample ID: 480-45969-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.29		0.977	0.391	mg/Kg	1	₩	6010	Total/NA
Barium	124		0.488	0.107	mg/Kg	1	₩	6010	Total/NA
Cadmium	3.15		0.195	0.0293	mg/Kg	1	₽	6010	Total/NA
Chromium	66.7		0.488	0.195	mg/Kg	1	₩	6010	Total/NA
Silver	0.783		0.488	0.195	mg/Kg	1	₩	6010	Total/NA
Lead	668	^	0.488	0.234	mg/Kg	1	₩	6010	Total/NA
Selenium	1.38		0.488	0.391	mg/Kg	1	₩	6010	Total/NA
Antimony	2.90	^	0.488	0.391	mg/Kg	1	₩	6010	Total/NA
Beryllium	1.96		0.195	0.0274	mg/Kg	1	₽	6010	Total/NA
Nickel	129		0.977	0.225	mg/Kg	1	₩	6010	Total/NA
Vanadium	22.4		0.488	0.107	mg/Kg	1	₩	6010	Total/NA
Zinc	1330	В	2.44	0.149	mg/Kg	1	₽	6010	Total/NA
Mercury	2.46		0.968	0.0784	mg/Kg	10	φ.	7471A	Total/NA

Client Sample ID: WCSS-23-(0-0.25)

Lab Sample ID: 480-45969-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac		Method	Prep Type
Bromomethane	0.0474	J	0.195	0.0176	mg/Kg	1	₩	8260C	Total/NA
Chloromethane	0.0532	J	0.195	0.0118	mg/Kg	1	₩	8260C	Total/NA
cis-1,2-Dichloroethene	0.0363	J	0.0977	0.0250	mg/Kg	1	₩	8260C	Total/NA
Dichlorodifluoromethane	0.120	J	0.195	0.0161	mg/Kg	1	₽	8260C	Total/NA
Naphthalene	0.0337	J	0.977	0.0262	mg/Kg	1	₽	8260C	Total/NA
Tetrachloroethene	1.59		0.0977	0.0262	mg/Kg	1	₩	8260C	Total/NA
Trichloroethene	0.110		0.0977	0.0430	mg/Kg	1	₩	8260C	Total/NA
Trichlorofluoromethane	0.0379	J	0.195	0.0185	mg/Kg	1	₽	8260C	Total/NA
Vinyl chloride	0.0509	J	0.0977	0.0238	mg/Kg	1	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.411	J	2.64	0.106	mg/Kg	10	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.411	J	2.03	0.0811	mg/Kg	10	₽	MAVPH	Total/NA
C9-C10 Aromatics	2.34		2.03	0.0811	mg/Kg	10	₩	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	2.21		2.03	0.0811	mg/Kg	10	₩	MAVPH	Total/NA
Acenaphthene	0.176	J	0.517	0.0838	mg/Kg	1	₩	MA-EPH	Total/NA
Acenaphthylene	0.354	J	0.517	0.0931	mg/Kg	1	₩	MA-EPH	Total/NA
Anthracene	0.397	J	0.517	0.0982	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene	2.00		0.517	0.0786	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]pyrene	3.00		0.517	0.0745	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[b]fluoranthene	3.18		0.517	0.0734	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	2.45	В	0.517	0.0879	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.43		0.517	0.0755	mg/Kg	1	₽	MA-EPH	Total/NA
2-Methylnaphthalene	0.133	J	0.517	0.101	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	2.53		0.517	0.0920	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	1.24	В	0.517	0.0724	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	2.78		0.517	0.0910	mg/Kg	1	₩	MA-EPH	Total/NA
Fluorene	0.302	J	0.517	0.103	mg/Kg	1	₽	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	2.45	В	0.517	0.0755	mg/Kg	1	₩	MA-EPH	Total/NA
Naphthalene	0.116	J	0.517	0.0869	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene	1.29	В	0.517	0.103	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	3.16		0.517	0.0941	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	128	В	5.17	2.07	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	221		5.17	2.07	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	59.0		5.17	2.07	mg/Kg	1	₩	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-12

#### Client Sample ID: WCSS-23-(0-0.25) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	34.4		1.07	0.429	mg/Kg		₩	6010	Total/NA
Barium	4750		5.36	1.18	mg/Kg	10	₩	6010	Total/NA
Cadmium	14.6		0.214	0.0322	mg/Kg	1	₩	6010	Total/NA
Chromium	119		0.536	0.214	mg/Kg	1	₽	6010	Total/NA
Silver	2.13		0.536	0.214	mg/Kg	1	₩	6010	Total/NA
Lead	13100		5.36	2.57	mg/Kg	10	₩	6010	Total/NA
Selenium	4.77		0.536	0.429	mg/Kg	1	₩.	6010	Total/NA
Antimony	112	^	0.536	0.429	mg/Kg	1	₩	6010	Total/NA
Beryllium	1.21		0.214	0.0300	mg/Kg	1	₽	6010	Total/NA
Nickel	109		1.07	0.247	mg/Kg	1	₽	6010	Total/NA
Vanadium	46.6		0.536	0.118	mg/Kg	1	₩	6010	Total/NA
Zinc	10000	В	26.8	1.64	mg/Kg	10	₽	6010	Total/NA
Mercury	6.55		2.18	0.176	mg/Kg	20	₽	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	101		5.28	5.28	mg/Kg		₩	MA-EPH	Total/NA

## Client Sample ID: WCSS-25-(0-0.25)

#### Lab Sample ID: 480-45969-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	0.127	J	1.52	0.0608	mg/Kg	5	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.127	J	1.37	0.0549	mg/Kg	5	₩	MAVPH	Total/NA
C9-C10 Aromatics	0.867	J	1.37	0.0549	mg/Kg	5	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.802	J	1.37	0.0549	mg/Kg	5	₽	MAVPH	Total/NA
Acenaphthene	0.211	J	0.597	0.0967	mg/Kg	1	₽	MA-EPH	Total/NA
Anthracene	0.670		0.597	0.113	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene	4.08		0.597	0.0907	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	5.20		0.597	0.0859	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	7.26		0.597	0.0847	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[g,h,i]perylene	3.77	В	0.597	0.101	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[k]fluoranthene	2.94		0.597	0.0871	mg/Kg	1	₩	MA-EPH	Total/NA
2-Methylnaphthalene	0.168	J	0.597	0.117	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	6.32		0.597	0.106	mg/Kg	1	₩.	MA-EPH	Total/NA
Dibenz(a,h)anthracene	2.06	В	0.597	0.0835	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	10.6		0.597	0.105	mg/Kg	1	₽	MA-EPH	Total/NA
Fluorene	0.375	J	0.597	0.119	mg/Kg	1	₽	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	3.92	В	0.597	0.0871	mg/Kg	1	₽	MA-EPH	Total/NA
Naphthalene	0.162	J	0.597	0.100	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	4.44	В	0.597	0.119	mg/Kg	1	₩.	MA-EPH	Total/NA
Pyrene	8.42		0.597	0.109	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	235	В	5.97	2.39	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	226		5.97	2.39	mg/Kg	1	÷	MA-EPH	Total/NA
C9-C18 Aliphatics	6.58		5.97	2.39	mg/Kg	1	₽	MA-EPH	Total/NA
Arsenic	8.97		1.18	0.474	mg/Kg	1	₽	6010	Total/NA
Barium	238		0.592	0.130	mg/Kg	1	÷.	6010	Total/NA
Cadmium	10.9		0.237	0.0355	mg/Kg	1	₽	6010	Total/NA
Chromium	71.3		0.592	0.237	mg/Kg	1	₩	6010	Total/NA
Silver	1.11		0.592	0.237	mg/Kg	1	₩.	6010	Total/NA
Lead	1230	^	0.592	0.284	mg/Kg	1	₽	6010	Total/NA
Selenium	2.15		0.592	0.474	mg/Kg	1	₽	6010	Total/NA
Antimony	3.02	Λ	0.592	0.474	mg/Kg	1	- ₩	6010	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-25-(0-0.25) (Continued)

Lab Sample ID: 480-45969-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.593		0.237	0.0331	mg/Kg	1	#	6010	Total/NA
Nickel	101		1.18	0.272	mg/Kg	1	₽	6010	Total/NA
Vanadium	57.6		0.592	0.130	mg/Kg	1	₽	6010	Total/NA
Zinc	2240	В	2.96	0.181	mg/Kg	1	₩	6010	Total/NA
Mercury	3.10		1.17	0.0944	mg/Kg	10	₩	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	174		6.08	6.08	mg/Kg	1	₩	MA-EPH	Total/NA

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Client Sample ID: WCSS-24-(0-0.25)

Lab Sample ID: 480-45969-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.81	·	1.02	0.409	mg/Kg	1	₩	6010	Total/NA
Barium	161		0.511	0.113	mg/Kg	1	₽	6010	Total/NA
Cadmium	4.16		0.205	0.0307	mg/Kg	1	₩	6010	Total/NA
Chromium	107		0.511	0.205	mg/Kg	1	₽	6010	Total/NA
Silver	0.855		0.511	0.205	mg/Kg	1	₩	6010	Total/NA
Lead	1960	^	0.511	0.245	mg/Kg	1	₽	6010	Total/NA
Selenium	2.16		0.511	0.409	mg/Kg	1	₩	6010	Total/NA
Antimony	0.481	J ^	0.511	0.409	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.416		0.205	0.0286	mg/Kg	1	₩	6010	Total/NA
Thallium	0.505	J	1.02	0.307	mg/Kg	1	₩	6010	Total/NA
Nickel	134		1.02	0.235	mg/Kg	1	₩	6010	Total/NA
Vanadium	96.6		0.511	0.113	mg/Kg	1	₽	6010	Total/NA
Zinc	1350	В	2.56	0.157	mg/Kg	1	₩	6010	Total/NA
Mercury	4.85		2.27	0.184	mg/Kg	20	₽	7471A	Total/NA

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**Client Sample ID: WCSS-26-(0-0.25)** 

Lab Sample ID: 480-45969-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.548		0.139	0.0355	mg/Kg	2	₩	8260C	Total/NA
Tetrachloroethene	3.94		0.139	0.0372	mg/Kg	2	₽	8260C	Total/NA
Trichloroethene	0.402		0.139	0.0611	mg/Kg	2	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.697	J	1.32	0.0530	mg/Kg	5	\$	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.697	J	0.762	0.0305	mg/Kg	5	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.608	J	0.762	0.0305	mg/Kg	5	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.609	J	0.762	0.0305	mg/Kg	5	₽	MAVPH	Total/NA
Anthracene	0.101	J	0.521	0.0989	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene	0.424	J	0.521	0.0791	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	0.954		0.521	0.0750	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[b]fluoranthene	1.11		0.521	0.0739	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	1.13	В	0.521	0.0885	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene	0.529		0.521	0.0760	mg/Kg	1	₽	MA-EPH	Total/NA
Chrysene	0.627		0.521	0.0927	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	0.752	В	0.521	0.0729	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	0.727		0.521	0.0916	mg/Kg	1	\$	MA-EPH	Total/NA
Fluorene	0.175	J	0.521	0.104	mg/Kg	1	₽	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	1.11	В	0.521	0.0760	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.504	JB	0.521	0.104	mg/Kg	1	₩.	MA-EPH	Total/NA
Pyrene	0.698		0.521	0.0947	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	37.4	В	5.21	2.08	mg/Kg	1	₽	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-15

#### Client Sample ID: WCSS-26-(0-0.25) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C19-C36 Aliphatics	51.1		5.21	2.08	mg/Kg		₩	MA-EPH	Total/NA
C9-C18 Aliphatics	2.83	J	5.21	2.08	mg/Kg	1	.⇔	MA-EPH	Total/NA
Arsenic	1.80		1.06	0.425	mg/Kg	1	₩	6010	Total/NA
Barium	25.7		0.531	0.117	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.282		0.212	0.0318	mg/Kg	1	₩	6010	Total/NA
Chromium	15.2		0.531	0.212	mg/Kg	1	₩	6010	Total/NA
Lead	77.8	^	0.531	0.255	mg/Kg	1	₽	6010	Total/NA
Selenium	0.848		0.531	0.425	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.197	J	0.212	0.0297	mg/Kg	1	₽	6010	Total/NA
Nickel	16.1		1.06	0.244	mg/Kg	1	₽	6010	Total/NA
Vanadium	14.6		0.531	0.117	mg/Kg	1	₽	6010	Total/NA
Zinc	92.0	В	2.65	0.162	mg/Kg	1	₩	6010	Total/NA
Mercury	0.131		0.108	0.00874	mg/Kg	1	₩	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	28.5		5.30	5.30	mg/Kg		₩	MA-EPH	Total/NA

#### Client Sample ID: WCSS-27-(0-0.25)

#### Lab Sample ID: 480-45969-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.07		0.0937	0.0262	mg/Kg	1	₩	8260C	Total/NA
Naphthalene	0.0298	J	0.937	0.0251	mg/Kg	1	₩	8260C	Total/NA
Tetrachloroethene	0.0923	J	0.0937	0.0252	mg/Kg	1	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.0484	J	0.285	0.0114	mg/Kg	1	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.0520	J	0.174	0.00694	mg/Kg	1	₩	MAVPH	Total/NA
C9-C10 Aromatics	0.580		0.174	0.00694	mg/Kg	1	₩	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.270		0.174	0.00694	mg/Kg	1	₽	MAVPH	Total/NA
Benzo[a]pyrene	0.0936	J	0.565	0.0814	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	0.164	J	0.565	0.0802	mg/Kg	1	₩	MA-EPH	Total/NA
2-Methylnaphthalene	0.632		0.565	0.111	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	0.119	J	0.565	0.101	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	0.238	J	0.565	0.0994	mg/Kg	1	₽	MA-EPH	Total/NA
Fluorene	0.255	J	0.565	0.113	mg/Kg	1	₩	MA-EPH	Total/NA
Naphthalene	1.03		0.565	0.0949	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene	0.500	JB	0.565	0.113	mg/Kg	1	₩	MA-EPH	Total/NA
Pyrene	0.190	J	0.565	0.103	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	12.1	В	5.65	2.26	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	160		5.65	2.26	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	23.5		5.65	2.26	mg/Kg	1	₩	MA-EPH	Total/NA
Arsenic	6.33		0.998	0.399	mg/Kg	1	₩	6010	Total/NA
Barium	69.9		0.499	0.110	mg/Kg	1	₩	6010	Total/NA
Cadmium	1.94		0.200	0.0299	mg/Kg	1	φ.	6010	Total/NA
Chromium	213		0.499	0.200	mg/Kg	1	₩	6010	Total/NA
Lead	1300		2.49	1.20	mg/Kg	5	₩	6010	Total/NA
Selenium	3.04		0.499	0.399	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.130	J	0.200	0.0279	mg/Kg	1	₩	6010	Total/NA
Thallium	0.418	J	0.998	0.299	mg/Kg	1	₩	6010	Total/NA
Nickel	288		4.99	1.15	mg/Kg	5	₩	6010	Total/NA
Vanadium	102		2.49	0.549	mg/Kg	5	₽	6010	Total/NA
Zinc	544	В	2.49	0.153	mg/Kg	1	₽	6010	Total/NA
Mercury	0.664		0.108	0.00878	mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Client Sample ID: WCSS-27-(0-0.25) (Continued)

Lab Sample ID: 480-45969-16

Result Qualifier Dil Fac D Method Analyte RLRL Unit Prep Type 1 <sup>☼</sup> MA-EPH C11-C22 Aromatics (Adjusted) 8.84 5.71 5.71 mg/Kg Total/NA

Client Sample ID: WCSS-28-(0-0.25)

Lab Sample ID: 480-45969-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.00194	J	0.00239	0.000643	mg/Kg	1	₩	8260C	Total/NA
C9-C10 Aromatics	1.21	J	1.34	0.0535	mg/Kg	10	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.854	J	1.34	0.0535	mg/Kg	10	₽	MAVPH	Total/NA
Acenaphthylene	0.157	J	0.512	0.0921	mg/Kg	1	₽	MA-EPH	Total/NA
Anthracene	0.357	J	0.512	0.0972	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]anthracene	1.29		0.512	0.0778	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	1.66		0.512	0.0737	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	2.10		0.512	0.0726	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	1.41	В	0.512	0.0870	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.14		0.512	0.0747	mg/Kg	1	₩.	MA-EPH	Total/NA
Chrysene	1.55		0.512	0.0911	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	0.881	В	0.512	0.0716	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	1.93		0.512	0.0900	mg/Kg	1	₩	MA-EPH	Total/NA
Fluorene	0.187	J	0.512	0.102	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	1.44	В	0.512	0.0747	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene	1.22	В	0.512	0.102	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	1.94		0.512	0.0931	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	71.7	В	5.12	2.05	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	14.3		5.12	2.05	mg/Kg	1	₩	MA-EPH	Total/NA
Arsenic	2.45		0.976	0.390	mg/Kg	1	₩	6010	Total/NA
Barium	28.9		0.488	0.107	mg/Kg	1	₩	6010	Total/NA
Cadmium	0.783		0.195	0.0293	mg/Kg	1	₽	6010	Total/NA
Chromium	30.6		0.488	0.195	mg/Kg	1	₩	6010	Total/NA
Lead	143	٨	0.488	0.234	mg/Kg	1	₩	6010	Total/NA
Selenium	0.499		0.488	0.390	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.217		0.195	0.0273	mg/Kg	1	₩	6010	Total/NA
Nickel	34.8		0.976	0.224	mg/Kg	1	₽	6010	Total/NA
Vanadium	25.1		0.488	0.107	mg/Kg	1	₩.	6010	Total/NA
Zinc	177	В	2.44	0.149	mg/Kg	1	₩	6010	Total/NA
Mercury	0.178		0.0987	0.00799	mg/Kg	1	₽	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	54.4		5.34	5.34	mg/Kg		₩	MA-EPH	Total/NA

Client Sample ID: WCSS-29-(0-0.25)

Lab Sample ID: 480-45969-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.47		1.16	0.463	mg/Kg	1	₩	6010	Total/NA
Barium	178		0.579	0.127	mg/Kg	1	₩	6010	Total/NA
Cadmium	5.32		0.232	0.0347	mg/Kg	1	₽	6010	Total/NA
Chromium	105		0.579	0.232	mg/Kg	1	₩	6010	Total/NA
Silver	0.891		0.579	0.232	mg/Kg	1	₩	6010	Total/NA
Lead	1280	۸	0.579	0.278	mg/Kg	1	₩	6010	Total/NA
Selenium	2.27		0.579	0.463	mg/Kg	1	₩	6010	Total/NA
Antimony	5.48	۸	0.579	0.463	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.316		0.232	0.0324	mg/Kg	1	₩	6010	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-18

Client Co.	mala ID.	MICCO DO	(0 0 0E)	(Continued)
Client Sai	mble ID:	WC33-29	-(U-U.Z3)	(Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	130		1.16	0.266	mg/Kg	1	*	6010	Total/NA
Vanadium	41.2		0.579	0.127	mg/Kg	1	₩	6010	Total/NA
Zinc	2080	В	2.89	0.177	mg/Kg	1	₩	6010	Total/NA
Mercury	5.57		2.10	0.170	mg/Kg	20	₽	7471A	Total/NA

#### Lab Sample ID: 480-45969-19

Lab Sample ID: 480-45969-20

Lab Sample ID: 480-45969-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.47		1.01	0.403	mg/Kg	1	₩	6010	Total/NA
Barium	37.1		0.504	0.111	mg/Kg	1	₩	6010	Total/NA
Cadmium	0.346		0.202	0.0302	mg/Kg	1	₽	6010	Total/NA
Chromium	19.1		0.504	0.202	mg/Kg	1	₩	6010	Total/NA
Lead	78.2	^	0.504	0.242	mg/Kg	1	₽	6010	Total/NA
Selenium	0.869	В	0.504	0.403	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.366		0.202	0.0282	mg/Kg	1	₩	6010	Total/NA
Nickel	18.2		1.01	0.232	mg/Kg	1	₽	6010	Total/NA
Vanadium	20.3		0.504	0.111	mg/Kg	1	₩	6010	Total/NA
Zinc	91.7	В	2.52	0.154	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0771	J	0.112	0.00906	mg/Kg	1	₽	7471A	Total/NA

#### Client Sample ID: WCSS-31-(0-0.25)

Client Sample ID: WCSS-30-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.36		1.02	0.410	mg/Kg	1	₩	6010	Total/NA
Barium	26.2		0.512	0.113	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.206		0.205	0.0307	mg/Kg	1	₽	6010	Total/NA
Chromium	10.9		0.512	0.205	mg/Kg	1	₽	6010	Total/NA
Lead	52.1	^	0.512	0.246	mg/Kg	1	₩	6010	Total/NA
Selenium	0.667	В	0.512	0.410	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.238		0.205	0.0287	mg/Kg	1	₩	6010	Total/NA
Nickel	11.8		1.02	0.236	mg/Kg	1	₽	6010	Total/NA
Vanadium	21.4		0.512	0.113	mg/Kg	1	₽	6010	Total/NA
Zinc	62.5	В	2.56	0.157	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0756	J	0.102	0.00823	mg/Kg	1	₩	7471A	Total/NA

#### **Client Sample ID: WCSS-32-(0-0.25)**

	0 01 (0 0:10)								
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.24		0.968	0.387	mg/Kg	1	₩	6010	Total/NA
Barium	45.6		0.484	0.107	mg/Kg	1	₩	6010	Total/NA
Cadmium	0.981		0.194	0.0291	mg/Kg	1	₩	6010	Total/NA
Chromium	49.6		0.484	0.194	mg/Kg	1	₩.	6010	Total/NA
Lead	202	^	0.484	0.232	mg/Kg	1	₩	6010	Total/NA
Selenium	1.24	В	0.484	0.387	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.348		0.194	0.0271	mg/Kg	1	₩	6010	Total/NA
Nickel	54.7		0.968	0.223	mg/Kg	1	₩	6010	Total/NA
Vanadium	37.7		0.484	0.107	mg/Kg	1	₩	6010	Total/NA
Zinc	222	В	2.42	0.148	mg/Kg	1	₩	6010	Total/NA
Mercury	0.177		0.109	0.00879	mg/Kg	1	₽	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-22

#### Client Sample ID: WCSS-33-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	0.0530	J	0.293	0.0117	mg/Kg		₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.0718	J	0.196	0.00783	mg/Kg	1	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.429		0.196	0.00783	mg/Kg	1	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.339		0.196	0.00783	mg/Kg	1	₽	MAVPH	Total/NA
Anthracene	0.203	J	0.550	0.105	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]anthracene	1.27		0.550	0.0837	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	1.63		0.550	0.0793	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	2.08		0.550	0.0782	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	2.24	В	0.550	0.0936	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.07		0.550	0.0804	mg/Kg	1	₩	MA-EPH	Total/NA
2-Methylnaphthalene	0.125	J	0.550	0.108	mg/Kg	1	₽	MA-EPH	Total/NA
Chrysene	1.50		0.550	0.0980	mg/Kg	1	₩	MA-EPH	Total/NA
Dibenz(a,h)anthracene	1.27	В	0.550	0.0771	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	1.46		0.550	0.0969	mg/Kg	1	₩	MA-EPH	Total/NA
Fluorene	0.322	J	0.550	0.110	mg/Kg	1	₽	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	1.81	В	0.550	0.0804	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.892	В	0.550	0.110	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	1.51		0.550	0.100	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	92.2	В	5.50	2.20	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	165		5.50	2.20	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	4.60	J	5.50	2.20	mg/Kg	1	₽	MA-EPH	Total/NA
Arsenic	19.8		1.15	0.459	mg/Kg	1	₩	6010	Total/NA
Barium	208		0.573	0.126	mg/Kg	1	₽	6010	Total/NA
Cadmium	7.21		0.229	0.0344	mg/Kg	1	₩	6010	Total/NA
Chromium	109		0.573	0.229	mg/Kg	1	₩	6010	Total/NA
Silver	1.77		0.573	0.229	mg/Kg	1	₩	6010	Total/NA
Lead	1470	۸	0.573	0.275	mg/Kg	1	₩	6010	Total/NA
Selenium	2.89	В	0.573	0.459	mg/Kg	1	₩	6010	Total/NA
Antimony	5.34	^	0.573	0.459	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.605		0.229	0.0321	mg/Kg	1	₽	6010	Total/NA
Nickel	178		1.15	0.264	mg/Kg	1	₽	6010	Total/NA
Vanadium	67.0		0.573	0.126	mg/Kg	1	₽	6010	Total/NA
Zinc	1740	В	2.87	0.175	mg/Kg	1	₩	6010	Total/NA
Mercury	2.65		2.16	0.175	mg/Kg	20	₽	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	74.8		5.87	5.87	mg/Kg		<del>\</del>	MA-EPH	Total/NA

## Client Sample ID: WCSS-34-(0-0.25)

Lab Sampl	le ID: 480	0-45969-23
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	0.0979	J	1.47	0.0588	mg/Kg	5	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.141	J	1.01	0.0405	mg/Kg	5	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.609	J	1.01	0.0405	mg/Kg	5	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.480	J	1.01	0.0405	mg/Kg	5	₽	MAVPH	Total/NA
Anthracene	0.241	J	0.574	0.109	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene	1.62		0.574	0.0873	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]pyrene	2.31		0.574	0.0827	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[b]fluoranthene	3.74		0.574	0.0815	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	2.04	В	0.574	0.0976	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.44		0.574	0.0838	mg/Kg	1	φ.	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Client Sample ID: WCSS-34-(0-0.25) (Continued)

Lab Sample ID: 480-45969-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.157	J	0.574	0.113	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	2.10		0.574	0.102	mg/Kg	1	₩	MA-EPH	Total/NA
Dibenz(a,h)anthracene	1.31	В	0.574	0.0804	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	1.93		0.574	0.101	mg/Kg	1	₩	MA-EPH	Total/NA
Fluorene	0.165	J	0.574	0.115	mg/Kg	1	₽	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	2.17	В	0.574	0.0838	mg/Kg	1	₽	MA-EPH	Total/NA
Naphthalene	0.105	J	0.574	0.0965	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.926	В	0.574	0.115	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	1.90		0.574	0.105	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	109	В	5.74	2.30	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	288		5.74	2.30	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	3.63	J	5.74	2.30	mg/Kg	1	₩	MA-EPH	Total/NA
Arsenic	10.4		1.13	0.452	mg/Kg	1	₽	6010	Total/NA
Barium	114		0.565	0.124	mg/Kg	1	₩	6010	Total/NA
Cadmium	4.36		0.226	0.0339	mg/Kg	1	₩	6010	Total/NA
Chromium	111		0.565	0.226	mg/Kg	1	₽	6010	Total/NA
Silver	1.47		0.565	0.226	mg/Kg	1	₽	6010	Total/NA
Lead	1040	^	0.565	0.271	mg/Kg	1	₩	6010	Total/NA
Selenium	1.67	В	0.565	0.452	mg/Kg	1	₩	6010	Total/NA
Antimony	2.83	^	0.565	0.452	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.524		0.226	0.0316	mg/Kg	1	₽	6010	Total/NA
Nickel	113		1.13	0.260	mg/Kg	1	₩	6010	Total/NA
Vanadium	45.8		0.565	0.124	mg/Kg	1	₽	6010	Total/NA
Zinc	1120	В	2.82	0.173	mg/Kg	1	₩	6010	Total/NA
Mercury	2.09	J	2.17	0.175	mg/Kg	20	₽	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	87.3		5.88	5.88	mg/Kg	1	₩	MA-EPH	Total/NA

## Client Sample ID: WCSS-35-(0-0.25)

Lab Sample ID: 480-45969-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	0.0664	J	0.113	0.0317	mg/Kg	1	₩	8260C	Total/NA
2-Butanone (MEK)	0.197	J *	1.13	0.0830	mg/Kg	1	₽	8260C	Total/NA
4-Isopropyltoluene	0.236		0.113	0.0182	mg/Kg	1	₩	8260C	Total/NA
Acetone	0.745	J	11.3	0.191	mg/Kg	1	₽	8260C	Total/NA
Benzene	0.0453	J	0.113	0.0111	mg/Kg	1	₩	8260C	Total/NA
Ethylbenzene	0.0986	J	0.113	0.0156	mg/Kg	1	₽	8260C	Total/NA
Isopropylbenzene	0.0596	J	0.113	0.0342	mg/Kg	1	₽	8260C	Total/NA
m-Xylene & p-Xylene	0.0989	J	0.227	0.0381	mg/Kg	1	₽	8260C	Total/NA
N-Propylbenzene	0.0342	J	0.113	0.0181	mg/Kg	1	₽	8260C	Total/NA
Styrene	1.87		0.113	0.0113	mg/Kg	1	₽	8260C	Total/NA
Tetrachloroethene	0.0594	J	0.113	0.0304	mg/Kg	1	₽	8260C	Total/NA
Toluene	0.0785	J	0.113	0.0171	mg/Kg	1	₽	8260C	Total/NA
Trichlorofluoromethane	0.0900	J	0.227	0.0214	mg/Kg	1	₽	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.0636	J	0.270	0.0108	mg/Kg	1	₽	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.177	J	0.247	0.00988	mg/Kg	1	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.334		0.247	0.00988	mg/Kg	1	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.722		0.247	0.00988	mg/Kg	1	₽	MAVPH	Total/NA
Anthracene	0.686		0.519	0.0987	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]anthracene	2.88		0.519	0.0789	mg/Kg	1	₽	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Client Sample ID: WCSS-35-(0-0.25) (Continued)

Lab Sample ID: 480-45969-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	2.55		0.519	0.0748	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	4.02		0.519	0.0738	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	1.64	В	0.519	0.0883	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.93		0.519	0.0758	mg/Kg	1	₩	MA-EPH	Total/NA
2-Methylnaphthalene	0.126	J	0.519	0.102	mg/Kg	1	₽	MA-EPH	Total/NA
Chrysene	4.23		0.519	0.0925	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	1.01	В	0.519	0.0727	mg/Kg	1	₩	MA-EPH	Total/NA
Fluoranthene	2.69		0.519	0.0914	mg/Kg	1	₽	MA-EPH	Total/NA
Fluorene	0.135	J	0.519	0.104	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	1.75	В	0.519	0.0758	mg/Kg	1	₩	MA-EPH	Total/NA
Phenanthrene	0.979	В	0.519	0.104	mg/Kg	1	₩	MA-EPH	Total/NA
Pyrene	4.12		0.519	0.0945	mg/Kg	1	₩.	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	108	В	5.19	2.08	mg/Kg	1	₩	MA-EPH	Total/NA
C19-C36 Aliphatics	64.6		5.19	2.08	mg/Kg	1	₩	MA-EPH	Total/NA
C9-C18 Aliphatics	2.55	J	5.19	2.08	mg/Kg	1	₩	MA-EPH	Total/NA
Arsenic	3.04		1.14	0.456	mg/Kg	1	₩	6010	Total/NA
Barium	58.5		0.570	0.125	mg/Kg	1	₽	6010	Total/NA
Cadmium	1.33		0.228	0.0342	mg/Kg	1	₽	6010	Total/NA
Chromium	25.7		0.570	0.228	mg/Kg	1	₩	6010	Total/NA
Silver	0.469	J	0.570	0.228	mg/Kg	1	₽	6010	Total/NA
Lead	247	^	0.570	0.274	mg/Kg	1	₽	6010	Total/NA
Selenium	0.487	JB	0.570	0.456	mg/Kg	1	₽	6010	Total/NA
Antimony	2.17	٨	0.570	0.456	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.231		0.228	0.0319	mg/Kg	1	₩	6010	Total/NA
Nickel	32.2		1.14	0.262	mg/Kg	1	₽	6010	Total/NA
Vanadium	15.5		0.570	0.125	mg/Kg	1	₽	6010	Total/NA
Zinc	333	В	2.85	0.174	mg/Kg	1	₩	6010	Total/NA
Mercury	0.408		0.0998	0.00808	mg/Kg	1	₽	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	78.9		5.40	5.40	mg/Kg		₩	MA-EPH	Total/NA

#### Client Sample ID: WCSS-36-(0-0.25)

#### Lab Sample ID: 480-45969-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	13.8		1.06	0.423	mg/Kg	1	₩	6010	Total/NA
Barium	246		0.529	0.116	mg/Kg	1	₽	6010	Total/NA
Cadmium	16.1		0.212	0.0318	mg/Kg	1	₩	6010	Total/NA
Chromium	229		0.529	0.212	mg/Kg	1	₽	6010	Total/NA
Silver	2.78		2.65	1.06	mg/Kg	5	₽	6010	Total/NA
Lead	1690		2.65	1.27	mg/Kg	5	₽	6010	Total/NA
Selenium	4.14	В	0.529	0.423	mg/Kg	1	₽	6010	Total/NA
Antimony	4.35	^	0.529	0.423	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.347		0.212	0.0296	mg/Kg	1	₽	6010	Total/NA
Thallium	0.564	J	1.06	0.318	mg/Kg	1	₩	6010	Total/NA
Nickel	328		5.29	1.22	mg/Kg	5	₩	6010	Total/NA
Vanadium	179		2.65	0.582	mg/Kg	5	₽	6010	Total/NA
Zinc	1570	В	2.65	0.162	mg/Kg	1	₽	6010	Total/NA
Mercury	1.59	J	2.08	0.168	mg/Kg	20	₽	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-26

Lab Sample ID: 480-45969-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.52		0.892	0.357	mg/Kg	1	₽	6010	Total/NA
Barium	21.2		0.446	0.0981	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.0785	J	0.178	0.0268	mg/Kg	1	₽	6010	Total/NA
Chromium	7.33		0.446	0.178	mg/Kg	1	₽	6010	Total/NA
Lead	33.9	^	0.446	0.214	mg/Kg	1	₽	6010	Total/NA
Selenium	0.580	В	0.446	0.357	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.307		0.178	0.0250	mg/Kg	1	₽	6010	Total/NA
Nickel	17.3		0.892	0.205	mg/Kg	1	₽	6010	Total/NA
Vanadium	31.7		0.446	0.0981	mg/Kg	1	₩	6010	Total/NA
Zinc	70.1	В	2.23	0.137	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0300	J	0.0939	0.00761	mg/Kg	1	₽	7471A	Total/NA

## Client Sample ID: WCSS-39-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.10		1.15	0.461	mg/Kg	1	₩	6010	Total/NA
Barium	43.6		0.576	0.127	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.149	J	0.230	0.0346	mg/Kg	1	₽	6010	Total/NA
Chromium	12.9		0.576	0.230	mg/Kg	1	₩	6010	Total/NA
Lead	48.7	^	0.576	0.277	mg/Kg	1	₽	6010	Total/NA
Selenium	0.706	В	0.576	0.461	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.278		0.230	0.0323	mg/Kg	1	₩	6010	Total/NA
Nickel	16.0		1.15	0.265	mg/Kg	1	₩	6010	Total/NA
Vanadium	35.1		0.576	0.127	mg/Kg	1	₽	6010	Total/NA
Zinc	73.8	В	2.88	0.176	mg/Kg	1	₩	6010	Total/NA
Mercury	0.0688	J	0.0973	0.00788	mg/Kg	1	₽	7471A	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	0.0434	J	0.259	0.0104	mg/Kg	1	₩	MA VPH	Total/NA
C9-C12 Aliphatics (adjusted)	0.0707	J	0.259	0.0104	mg/Kg	1	₩	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.184		0.166	0.00662	mg/Kg	1	₩	MAVPH	Total/NA
C9-C10 Aromatics	0.338		0.166	0.00662	mg/Kg	1	₽	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.526		0.166	0.00662	mg/Kg	1	₩	MAVPH	Total/NA
Anthracene	0.205	J	0.488	0.0927	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene	1.41		0.488	0.0742	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[a]pyrene	1.74		0.488	0.0703	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[b]fluoranthene	2.11		0.488	0.0693	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[g,h,i]perylene	1.34	В	0.488	0.0830	mg/Kg	1	₩	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.08		0.488	0.0712	mg/Kg	1	₩	MA-EPH	Total/NA
Chrysene	1.60		0.488	0.0869	mg/Kg	1	₩	MA-EPH	Total/NA
Dibenz(a,h)anthracene	0.793	В	0.488	0.0683	mg/Kg	1	₩	MA-EPH	Total/NA
-luoranthene	1.55		0.488	0.0859	mg/Kg	1	₩	MA-EPH	Total/NA
luorene	0.196	J	0.488	0.0976	mg/Kg	1	₩	MA-EPH	Total/NA
ndeno[1,2,3-cd]pyrene	1.34	В	0.488	0.0712	mg/Kg	1	₽	MA-EPH	Total/NA
Phenanthrene	0.655	В	0.488	0.0976	mg/Kg	1	₩	MA-EPH	Total/NA
Pyrene	1.78		0.488	0.0888	mg/Kg	1	₩	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	82.1	В	4.88	1.95	mg/Kg	1	₽	MA-EPH	Total/NA
C19-C36 Aliphatics	148		4.88	1.95	mg/Kg	1	₽	MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-40-(0-0.25) (Continued)

Lab Sample ID: 480-45969-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C9-C18 Aliphatics	13.5		4.88	1.95	mg/Kg		₩	MA-EPH	Total/NA
Arsenic	4.33		1.04	0.415	mg/Kg	1	₩.	6010	Total/NA
Barium	83.1		0.519	0.114	mg/Kg	1	₽	6010	Total/NA
Cadmium	2.30		0.208	0.0312	mg/Kg	1	₽	6010	Total/NA
Chromium	38.5		0.519	0.208	mg/Kg	1	₩.	6010	Total/NA
Silver	1.49		0.519	0.208	mg/Kg	1	₽	6010	Total/NA
Lead	616	^	0.519	0.249	mg/Kg	1	₽	6010	Total/NA
Selenium	1.08	В	0.519	0.415	mg/Kg	1	₩.	6010	Total/NA
Beryllium	0.344		0.208	0.0291	mg/Kg	1	₽	6010	Total/NA
Nickel	51.8		1.04	0.239	mg/Kg	1	₽	6010	Total/NA
Vanadium	25.4		0.519	0.114	mg/Kg	1	₩.	6010	Total/NA
Zinc	562	В	2.60	0.159	mg/Kg	1	₽	6010	Total/NA
Mercury	0.893	۸	0.499	0.0404	mg/Kg	5	₽	7471A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	66.3		5.19	5.19	mg/Kg		₩	MA-EPH	Total/NA

Client Sample ID: WCSS-41-(0-0.25)

Lab Sample ID: 480-45969-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	11.1		1.14	0.457	mg/Kg	1	₩	6010	Total/NA
Barium	736		0.571	0.126	mg/Kg	1	₩	6010	Total/NA
Cadmium	13.5		0.229	0.0343	mg/Kg	1	₩	6010	Total/NA
Chromium	122		0.571	0.229	mg/Kg	1	₩	6010	Total/NA
Silver	5.75		0.571	0.229	mg/Kg	1	₩	6010	Total/NA
Lead	2520	^	0.571	0.274	mg/Kg	1	₩	6010	Total/NA
Selenium	3.05	В	0.571	0.457	mg/Kg	1	₩	6010	Total/NA
Antimony	14.9	^	0.571	0.457	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.481		0.229	0.0320	mg/Kg	1	₽	6010	Total/NA
Nickel	166		1.14	0.263	mg/Kg	1	₩	6010	Total/NA
Vanadium	64.7		0.571	0.126	mg/Kg	1	₽	6010	Total/NA
Zinc	3290	В	5.71	0.350	mg/Kg	2	₩	6010	Total/NA
Mercury	4.79		2.12	0.172	mg/Kg	20	₩.	7471A	Total/NA

Client Sample ID: WCSS-43-(0-0.25)

Lab Sample ID: 480-45969-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.74		1.08	0.431	mg/Kg	1	₩	6010	Total/NA
Barium	233		0.538	0.118	mg/Kg	1	₩	6010	Total/NA
Cadmium	7.88		0.215	0.0323	mg/Kg	1	₩	6010	Total/NA
Chromium	38.5		0.538	0.215	mg/Kg	1	₩	6010	Total/NA
Silver	0.709		0.538	0.215	mg/Kg	1	₩	6010	Total/NA
Lead	1440	^	0.538	0.258	mg/Kg	1	₩	6010	Total/NA
Selenium	1.54	В	0.538	0.431	mg/Kg	1	₩	6010	Total/NA
Antimony	16.6	^	0.538	0.431	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.350		0.215	0.0301	mg/Kg	1	₩	6010	Total/NA
Nickel	47.1		1.08	0.248	mg/Kg	1	₩	6010	Total/NA
Vanadium	22.0		0.538	0.118	mg/Kg	1	₩	6010	Total/NA
Zinc	989	В	2.69	0.165	mg/Kg	1	₩	6010	Total/NA
Mercury	9.00		2.05	0.166	mg/Kg	20	φ.	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-31

#### Client Sample ID: WCSS-44-(0-0.25)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.00511		0.00329	0.000883	mg/Kg		₩	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	0.185	J	1.26	0.0503	mg/Kg	5	₽	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	0.472	J	0.900	0.0360	mg/Kg	5	₽	MAVPH	Total/NA
C9-C10 Aromatics	0.588	J	0.900	0.0360	mg/Kg	5	₩.	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	0.607	J	0.900	0.0360	mg/Kg	5	₽	MAVPH	Total/NA
Acenaphthene	0.0785	J	0.471	0.0763	mg/Kg	1	₽	MA-EPH	Total/NA
Anthracene	0.321	J	0.471	0.0895	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]anthracene	1.37		0.471	0.0716	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[a]pyrene	3.41		0.471	0.0678	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[b]fluoranthene	2.90		0.471	0.0669	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[g,h,i]perylene	2.02	В	0.471	0.0801	mg/Kg	1	₽	MA-EPH	Total/NA
Benzo[k]fluoranthene	1.55		0.471	0.0688	mg/Kg	1	₽	MA-EPH	Total/NA
2-Methylnaphthalene	0.320	J	0.471	0.0923	mg/Kg	1	₩.	MA-EPH	Total/NA
Chrysene	2.01		0.471	0.0838	mg/Kg	1	₽	MA-EPH	Total/NA
Dibenz(a,h)anthracene	1.26	В	0.471	0.0659	mg/Kg	1	₽	MA-EPH	Total/NA
Fluoranthene	2.05		0.471	0.0829	mg/Kg	1	₩.	MA-EPH	Total/NA
Fluorene	0.284	J	0.471	0.0942	mg/Kg	1	₩	MA-EPH	Total/NA
Indeno[1,2,3-cd]pyrene	2.09	В	0.471	0.0688	mg/Kg	1	₽	MA-EPH	Total/NA
Naphthalene	0.309	J	0.471	0.0791	mg/Kg	1	₩.	MA-EPH	Total/NA
Phenanthrene	0.896	В	0.471	0.0942	mg/Kg	1	₽	MA-EPH	Total/NA
Pyrene	1.95		0.471	0.0857	mg/Kg	1	₽	MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	144	В	4.71	1.88	mg/Kg	1	₩.	MA-EPH	Total/NA
C19-C36 Aliphatics	441		4.71	1.88	mg/Kg	1	₽	MA-EPH	Total/NA
C9-C18 Aliphatics	36.5		4.71	1.88	mg/Kg	1	₽	MA-EPH	Total/NA
Arsenic	12.2		0.944	0.378	mg/Kg	1	₩.	6010	Total/NA
Barium	376		0.472	0.104	mg/Kg	1	₽	6010	Total/NA
Cadmium	11.2		0.189	0.0283	mg/Kg	1	₽	6010	Total/NA
Chromium	257		0.472	0.189	mg/Kg	1	₩.	6010	Total/NA
Silver	2.50		2.36	0.944	mg/Kg	5	₽	6010	Total/NA
Lead	2320		2.36	1.13	mg/Kg	5	₽	6010	Total/NA
Selenium	4.70	В	0.472	0.378	mg/Kg	1	₩.	6010	Total/NA
Antimony	18.5	٨	0.472	0.378	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.316		0.189	0.0264	mg/Kg	1	₽	6010	Total/NA
Nickel	290		4.72	1.09	mg/Kg	5	₩.	6010	Total/NA
Vanadium	51.2		2.36		mg/Kg	5	₽	6010	Total/NA
Zinc	3160	В	11.8	0.722	mg/Kg	5	₽	6010	Total/NA
Mercury	3.33		1.89		mg/Kg	20		7471A	Total/NA
Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	121	-	5.03	5.03	mg/Kg		₩	MA-EPH	Total/NA

#### Client Sample ID: WCSS-45-(0-0.25)

Lab Samp	le ID: 4	480-45969-	32
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	10.3		1.20	0.481	mg/Kg	1	₩	6010	Total/NA
Barium	227		0.602	0.132	mg/Kg	1	₩	6010	Total/NA
Cadmium	14.0		0.241	0.0361	mg/Kg	1	₩	6010	Total/NA
Chromium	32.4		0.602	0.241	mg/Kg	1	₽	6010	Total/NA
Silver	0.547	J	0.602	0.241	mg/Kg	1	₽	6010	Total/NA
Lead	1030	^	0.602	0.289	mg/Kg	1	₽	6010	Total/NA
Selenium	2.74	В	0.602	0.481	mg/Kg	1	₩.	6010	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-45-(0-0.25) (Continued)

Lab Sample ID: 480-45969-32

Analyte	Result (	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	6.32	^	0.602	0.481	mg/Kg	1	₩	6010	Total/NA
Beryllium	0.451		0.241	0.0337	mg/Kg	1	₽	6010	Total/NA
Nickel	60.9		1.20	0.277	mg/Kg	1	₽	6010	Total/NA
Vanadium	23.8		0.602	0.132	mg/Kg	1	₽	6010	Total/NA
Zinc	1420 E	В	3.01	0.184	mg/Kg	1	₽	6010	Total/NA
Mercury	2.81		2.31	0.187	mg/Kg	20	₽	7471A	Total/NA

Client Sample ID: WCSS-46-(0-0.25)

Lab Sample ID: 480-45969-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.59		1.11	0.444	mg/Kg	1	₩	6010	Total/NA
Barium	134		0.555	0.122	mg/Kg	1	₩	6010	Total/NA
Cadmium	11.1		0.222	0.0333	mg/Kg	1	₩	6010	Total/NA
Chromium	13.9		0.555	0.222	mg/Kg	1	₽	6010	Total/NA
Silver	0.273	J	0.555	0.222	mg/Kg	1	₩	6010	Total/NA
Lead	412	^	0.555	0.267	mg/Kg	1	₩	6010	Total/NA
Selenium	1.25	В	0.555	0.444	mg/Kg	1	₽	6010	Total/NA
Antimony	0.824	^	0.555	0.444	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.286		0.222	0.0311	mg/Kg	1	₽	6010	Total/NA
Nickel	32.9		1.11	0.255	mg/Kg	1	₽	6010	Total/NA
Vanadium	17.8		0.555	0.122	mg/Kg	1	₽	6010	Total/NA
Zinc	2440	В	5.55	0.340	mg/Kg	2	₽	6010	Total/NA
Mercury	4.06		1.94	0.157	mg/Kg	20	φ.	7471A	Total/NA

Client Sample ID: WCSS-47-(0-0.25)

Lab Sample ID: 480-45969-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.10		1.05	0.422	mg/Kg		#	6010	Total/NA
Barium	13.6		0.527	0.116	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.209	J	0.211	0.0316	mg/Kg	1	₽	6010	Total/NA
Chromium	8.76		0.527	0.211	mg/Kg	1	Þ	6010	Total/NA
Lead	61.4	^	0.527	0.253	mg/Kg	1	₽	6010	Total/NA
Selenium	0.444	JB	0.527	0.422	mg/Kg	1	₽	6010	Total/NA
Antimony	2.66	^	0.527	0.422	mg/Kg	1	₽	6010	Total/NA
Beryllium	0.146	J	0.211	0.0295	mg/Kg	1	₽	6010	Total/NA
Nickel	6.08		1.05	0.243	mg/Kg	1	₩	6010	Total/NA
Vanadium	11.5		0.527	0.116	mg/Kg	1	₽	6010	Total/NA
Zinc	47.7	В	2.64	0.161	mg/Kg	1	₽	6010	Total/NA
Mercury	0.106		0.0963	0.00780	mg/Kg	1	₽	7471A	Total/NA

Client Sample ID: WCSS-48-(0-0.25)

Lab Sample ID: 480-45969-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.17		0.984	0.393	mg/Kg		☼	6010	Total/NA
Barium	23.7		0.492	0.108	mg/Kg	1	₽	6010	Total/NA
Cadmium	0.181	J	0.197	0.0295	mg/Kg	1	₩	6010	Total/NA
Chromium	10.2		0.492	0.197	mg/Kg	1	₩	6010	Total/NA
Lead	33.5	^	0.492	0.236	mg/Kg	1	₽	6010	Total/NA
Selenium	0.787	В	0.492	0.393	mg/Kg	1	₽	6010	Total/NA
Bervllium	0.422		0.197	0.0275	ma/Ka	1	₽	6010	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

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## **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

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Client Sample ID: WCSS-48-(0-0.25) (Continued)

Lab	Sample	ID:	480	-459	<b>169</b>	-35
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Analyte	Result Qualifie	er RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	32.6	0.984	0.226	mg/Kg	1	₩	6010	Total/NA
Vanadium	16.4	0.492	0.108	mg/Kg	1	₽	6010	Total/NA
Zinc	45.1 B	2.46	0.150	mg/Kg	1	₽	6010	Total/NA
Mercury	0.0470 J	0.101	0.00819	mg/Kg	1	₽	7471A	Total/NA

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Client Sample ID: TB-09162013

Lab Sample ID: 480-45969-3
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12.5	J	50.0	3.00	ug/L	1	_	8260C	Total/NA
Methylene Chloride	0.507	J	1.00	0.440	ug/L	1		8260C	Total/NA
Tetrahydrofuran	3.19	J	10.0	1.25	ug/L	1		8260C	Total/NA

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-11-(0-0.25)

Date Collected: 09/16/13 12:00 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-1

**Matrix: Solid** 

Percent Solids: 90.3

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	23.8		1.20	0.481	mg/Kg	— <del>-</del>	09/18/13 10:50	09/18/13 22:41	1
Barium	384		0.602	0.132	mg/Kg	₩	09/18/13 10:50	09/18/13 22:41	1
Cadmium	9.17		0.241	0.0361	mg/Kg	₽	09/18/13 10:50	09/18/13 22:41	1
Chromium	102		0.602	0.241	mg/Kg		09/18/13 10:50	09/18/13 22:41	1
Silver	1.07		0.602	0.241	mg/Kg	₽	09/18/13 10:50	09/18/13 22:41	1
Lead	986	<b>A</b>	0.602	0.289	mg/Kg	₽	09/18/13 10:50	09/18/13 22:41	1
Selenium	3.28		0.602	0.481	mg/Kg		09/18/13 10:50	09/18/13 22:41	1
Antimony	1.96	^	0.602	0.481	mg/Kg	₽	09/18/13 10:50	09/18/13 22:41	1
Beryllium	0.603		0.241	0.0337	mg/Kg	₽	09/18/13 10:50	09/18/13 22:41	1
Thallium	<1.20		1.20	0.361	mg/Kg	\$	09/18/13 10:50	09/18/13 22:41	1
Nickel	495		1.20	0.277	mg/Kg	₽	09/18/13 10:50	09/18/13 22:41	1
Vanadium	54.0		0.602	0.132	mg/Kg	₩	09/18/13 10:50	09/18/13 22:41	1
Zinc	2820	В	6.02	0.368	mg/Kg	\$	09/18/13 10:50	09/19/13 15:05	2

Method: 7471A - Mercury (CVAA) Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 0.549 0.0444 mg/Kg 09/18/13 08:00 09/18/13 13:57 Mercury 1.77

Client Sample ID: WCSS-13-(0-0.25)

Date Collected: 09/16/13 11:45 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-2

**Matrix: Solid** Percent Solids: 87.4

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.22		1.26	0.506	mg/Kg	<u> </u>	09/18/13 10:50	09/18/13 22:43	1
Barium	73.3		0.632	0.139	mg/Kg	₽	09/18/13 10:50	09/18/13 22:43	1
Cadmium	2.77		0.253	0.0379	mg/Kg	₩	09/18/13 10:50	09/18/13 22:43	1
Chromium	72.8		0.632	0.253	mg/Kg	₽	09/18/13 10:50	09/18/13 22:43	1
Silver	< 0.632		0.632	0.253	mg/Kg	₩	09/18/13 10:50	09/18/13 22:43	1
Lead	1320	^	0.632	0.304	mg/Kg	₩	09/18/13 10:50	09/18/13 22:43	1
Selenium	1.36		0.632	0.506	mg/Kg	₽	09/18/13 10:50	09/18/13 22:43	1
Antimony	< 0.632	٨	0.632	0.506	mg/Kg	₩	09/18/13 10:50	09/18/13 22:43	1
Beryllium	0.196	J	0.253	0.0354	mg/Kg	₽	09/18/13 10:50	09/18/13 22:43	1
Thallium	2.04		1.26	0.379	mg/Kg		09/18/13 10:50	09/18/13 22:43	1
Nickel	79.4		1.26	0.291	mg/Kg	₩	09/18/13 10:50	09/18/13 22:43	1
Vanadium	291		0.632	0.139	mg/Kg	₽	09/18/13 10:50	09/18/13 22:43	1
Zinc	742	В	3.16	0.194	mg/Kg	\$	09/18/13 10:50	09/18/13 22:43	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Moreury	64.0		11.6	0.043	ma/Ka	<u> </u>	00/18/13 08:00	00/18/13 13:50	100

Mercury 61.0 11.6 0.943 mg/Kg 09/18/13 08:00 09/18/13 13:59 100

Client Sample ID: WCSS-14-(0-0.25)

Date Collected: 09/16/13 11:50 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-3 **Matrix: Solid** 

Percent Solids: 89.0

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.46		1.19	0.477	mg/Kg	<del></del>	09/18/13 10:50	09/18/13 22:46	1
Barium	60.5		0.596	0.131	mg/Kg	₩	09/18/13 10:50	09/18/13 22:46	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-14-(0-0.25)

Lab Sample ID: 480-45969-3 Date Collected: 09/16/13 11:50 Matrix: Solid

Date Received: 09/18/13 01:30 Percent Solids: 89.0

Method: 6010 - Metals (ICP) (Continu	ed)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	7.43		0.238	0.0358	mg/Kg	₩	09/18/13 10:50	09/18/13 22:46	1
Chromium	15.4		0.596	0.238	mg/Kg	\$	09/18/13 10:50	09/18/13 22:46	1
Silver	< 0.596		0.596	0.238	mg/Kg	₽	09/18/13 10:50	09/18/13 22:46	1
Lead	164	^	0.596	0.286	mg/Kg	₽	09/18/13 10:50	09/18/13 22:46	1
Selenium	1.03		0.596	0.477	mg/Kg	₽	09/18/13 10:50	09/18/13 22:46	1
Antimony	< 0.596	٨	0.596	0.477	mg/Kg	₩	09/18/13 10:50	09/18/13 22:46	1
Beryllium	0.197	J	0.238	0.0334	mg/Kg	₽	09/18/13 10:50	09/18/13 22:46	1
Thallium	<1.19		1.19	0.358	mg/Kg	₩	09/18/13 10:50	09/18/13 22:46	1
Nickel	38.0		1.19	0.274	mg/Kg	₩	09/18/13 10:50	09/18/13 22:46	1
Vanadium	13.4		0.596	0.131	mg/Kg	₽	09/18/13 10:50	09/18/13 22:46	1
Zinc	1770	В	2.98	0.182	mg/Kg	\$	09/18/13 10:50	09/18/13 22:46	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.27		1.15	0.0933	mg/Kg	<del>-</del>	09/18/13 08:00	09/18/13 14:00	10

Client Sample ID: WCSS-15-(0-0.25) Lab Sample ID: 480-45969-4 Date Collected: 09/16/13 11:35 Matrix: Solid

Date Received: 09/18/13 01:30 Percent Solids: 96.8

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.81		1.08	0.434	mg/Kg	<del>\</del>	09/18/13 10:50	09/18/13 22:48	1
Barium	22.4		0.542	0.119	mg/Kg	₽	09/18/13 10:50	09/18/13 22:48	1
Cadmium	0.433		0.217	0.0325	mg/Kg	₽	09/18/13 10:50	09/18/13 22:48	1
Chromium	11.5		0.542	0.217	mg/Kg	₩	09/18/13 10:50	09/18/13 22:48	1
Silver	<0.542		0.542	0.217	mg/Kg	₩	09/18/13 10:50	09/18/13 22:48	1
Lead	58.9	^	0.542	0.260	mg/Kg	₩	09/18/13 10:50	09/18/13 22:48	1
Selenium	<0.542		0.542	0.434	mg/Kg	₩.	09/18/13 10:50	09/18/13 22:48	1
Antimony	<0.542	^	0.542	0.434	mg/Kg	₩	09/18/13 10:50	09/18/13 22:48	1
Beryllium	0.216	J	0.217	0.0304	mg/Kg	₩	09/18/13 10:50	09/18/13 22:48	1
Thallium	<1.08		1.08	0.325	mg/Kg	₩.	09/18/13 10:50	09/18/13 22:48	1
Nickel	11.7		1.08	0.249	mg/Kg	₩	09/18/13 10:50	09/18/13 22:48	1
Vanadium	10.6		0.542	0.119	mg/Kg	₩	09/18/13 10:50	09/18/13 22:48	1
Zinc	88.1	<b>B</b>	2.71	0.166	mg/Kg	₩.	09/18/13 10:50	09/18/13 22:48	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.100		0.0941	0.00762	mg/Kg	<del>*</del>	09/18/13 08:00	09/18/13 11:28	1

Client Sample ID: WCSS-16-(0-0.25) Lab Sample ID: 480-45969-5

Date Collected: 09/16/13 11:05 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.0

Method: 6010 - Metals (ICP) Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.12		1.09	0.437	mg/Kg	<del>\</del>	09/18/13 10:50	09/18/13 22:50	1
Barium	101		0.547	0.120	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Cadmium	2.34		0.219	0.0328	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Chromium	41.7		0.547	0.219	mg/Kg	\$	09/18/13 10:50	09/18/13 22:50	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 11:05 Date Received: 09/18/13 01:30

Client Sample ID: WCSS-16-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-5

Percent Solids: 94.0

Lab	Saiii	hie	יטו.	400	-403	,03	-
				Ma	atrix:	So	lic

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.547		0.547	0.219	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Lead	484	^	0.547	0.262	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Selenium	1.16		0.547	0.437	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Antimony	2.50	^	0.547	0.437	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Beryllium	0.543		0.219	0.0306	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Thallium	<1.09		1.09	0.328	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Nickel	50.5		1.09	0.252	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Vanadium	19.2		0.547	0.120	mg/Kg	₽	09/18/13 10:50	09/18/13 22:50	1
Zinc	957	В	2.73	0.167	mg/Kg		09/18/13 10:50	09/18/13 22:50	1

Analyte Result Qualifier RL MDL Unit Prepared Analyzed 0.546 ₩ 09/18/13 08:00 09/18/13 14:02 0.0442 mg/Kg 0.868 Mercury

Client Sample ID: WCSS-18-(0-0.25) Lab Sample ID: 480-45969-6 Date Collected: 09/16/13 11:00 **Matrix: Solid** 

Date Received: 09/18/13 01:30 Percent Solids: 91.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.70		1.08	0.432	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Barium	990		0.540	0.119	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Cadmium	13.6		0.216	0.0324	mg/Kg	☼	09/18/13 10:50	09/18/13 23:06	1
Chromium	54.4		0.540	0.216	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Silver	1.29		0.540	0.216	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Lead	3400	^	0.540	0.259	mg/Kg	☼	09/18/13 10:50	09/18/13 23:06	1
Selenium	1.58		0.540	0.432	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Antimony	18.5	^	0.540	0.432	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Beryllium	0.784		0.216	0.0302	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Thallium	<1.08		1.08	0.324	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Nickel	130		1.08	0.248	mg/Kg	☼	09/18/13 10:50	09/18/13 23:06	1
Vanadium	25.1		0.540	0.119	mg/Kg	₽	09/18/13 10:50	09/18/13 23:06	1
Zinc	3190	В	5.40	0.331	mg/Kg		09/18/13 10:50	09/19/13 15:07	

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	72.8		10.8	0.873	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 14:10	100

Client Sample ID: WCSS-17-(0-0.25) Lab Sample ID: 480-45969-7

Date Collected: 09/16/13 12:25 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 89.1

nic Compounds (	(GC/MS)							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00293		0.00293	0.000586	mg/Kg	<del>\</del>	09/19/13 09:47	09/19/13 13:38	1
<0.00293		0.00293	0.000425	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
<0.00293		0.00293	0.000950	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
<0.00293		0.00293	0.000762	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
< 0.00293		0.00293	0.000715	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
< 0.00293		0.00293	0.000717	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
	Result <0.00293 <0.00293 <0.00293 <0.00293 <0.00293	<0.00293 <0.00293 <0.00293 <0.00293	Result         Qualifier         RL           <0.00293	Result         Qualifier         RL         MDL           <0.00293	Result         Qualifier         RL         MDL         Unit           <0.00293	Result         Qualifier         RL         MDL         Unit         D           <0.00293	Result         Qualifier         RL         MDL         Unit         D         Prepared           <0.00293	Result Qualifier         RL         MDL MDL         Unit         D MDL         Prepared         Analyzed           <0.00293

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-7

Matrix: Solid

Client Sample ID: WCSS-17-(0-0.25)

Date Collected: 09/16/13 12:25 Date Received: 09/18/13 01:30 Percent Solids: 89.1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1-Dichloropropene	<0.00293	0.00293	0.000832	mg/Kg	<u> </u>	09/19/13 09:47	09/19/13 13:38	
1,2,3-Trichlorobenzene	<0.00293	0.00293	0.000622	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
1,2,3-Trichloropropane	<0.00293	0.00293	0.000596	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
1,2,4-Trichlorobenzene	<0.00293	0.00293	0.000356	mg/Kg		09/19/13 09:47	09/19/13 13:38	
1,2,4-Trimethylbenzene	<0.00293	0.00293	0.00112	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
1,2-Dibromo-3-Chloropropane	<0.0293	0.0293	0.00293	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
1,2-Dichlorobenzene	<0.00293	0.00293	0.000458	mg/Kg	φ.	09/19/13 09:47	09/19/13 13:38	
1,2-Dichloroethane	<0.00293	0.00293	0.000294	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
1,2-Dichloropropane	<0.00293	0.00293	0.00293	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
1,3,5-Trimethylbenzene	<0.00293	0.00293	0.000377	mg/Kg		09/19/13 09:47	09/19/13 13:38	
1,3-Dichlorobenzene	<0.00293	0.00293	0.000301	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
1,3-Dichloropropane	<0.00293	0.00293	0.000351	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
1,4-Dichlorobenzene	<0.00293	0.00293	0.000820	mg/Kg		09/19/13 09:47	09/19/13 13:38	
1,4-Dioxane	<0.293 *	0.293	0.0282	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
2,2-Dichloropropane	<0.00293	0.00293	0.000996	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
2-Butanone (MEK)	<0.0293 *	0.0293	0.00214	mg/Kg		09/19/13 09:47	09/19/13 13:38	
2-Chlorotoluene	<0.00293	0.00293	0.000384	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
2-Hexanone	<0.0293	0.0293	0.00293	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
4-Chlorotoluene	<0.00293	0.00293	0.000691	mg/Kg	 ф	09/19/13 09:47	09/19/13 13:38	
1-Isopropyltoluene	<0.00293	0.00293	0.000470	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
4-Methyl-2-pentanone (MIBK)	<0.0293	0.0293	0.00192	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
Acetone	<0.293	0.293	0.00493			09/19/13 09:47	09/19/13 13:38	
Benzene	<0.00293	0.00293	0.000287	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
Bromobenzene	<0.00293	0.00293	0.00103	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
Bromoform	<0.00293	0.00293	0.00293	mg/Kg		09/19/13 09:47	09/19/13 13:38	
Bromomethane	<0.00586	0.00586	0.000527	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
Carbon disulfide	<0.00293	0.00293	0.00293	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	
Carbon tetrachloride	<0.00293	0.00293	0.000567			09/19/13 09:47	09/19/13 13:38	
Chlorobenzene	<0.00293	0.00293	0.000773		₽	09/19/13 09:47	09/19/13 13:38	
Chlorobromomethane	<0.00293	0.00293	0.000423	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	
Chlorodibromomethane	<0.00293	0.00293	0.000750			09/19/13 09:47	09/19/13 13:38	
Chloroethane	<0.00586	0.00586	0.00132	• •	₽	09/19/13 09:47	09/19/13 13:38	
Chloroform	<0.00293	0.00293	0.000362		₽	09/19/13 09:47	09/19/13 13:38	
Chloromethane	<0.00586	0.00293	0.000354			09/19/13 09:47	09/19/13 13:38	
cis-1,2-Dichloroethene	<0.00293	0.00293	0.000354		₽	09/19/13 09:47	09/19/13 13:38	
	<0.00293	0.00293			₩.			
cis-1,3-Dichloropropene Dichlorobromomethane	<0.00293	0.00293	0.000844 0.000785			09/19/13 09:47 09/19/13 09:47	09/19/13 13:38 09/19/13 13:38	
Dichlorodifluoromethane			0.000783		т Ф			
	<0.00586 <0.00293	0.00586 0.00293			т Ф	09/19/13 09:47 09/19/13 09:47	09/19/13 13:38	
Ethyl ether			0.00246		· · · · · ·		09/19/13 13:38	
Ethylbenzene	<0.00293	0.00293	0.000404		₩	09/19/13 09:47	09/19/13 13:38	
Ethylene Dibromide	<0.00293	0.00293	0.000752			09/19/13 09:47	09/19/13 13:38	
Hexachlorobutadiene	<0.00293	0.00293	0.000687		<del>.</del>	09/19/13 09:47	09/19/13 13:38	
sopropyl ether	<0.00293	0.00293	0.00293	mg/Kg	Ţ.	09/19/13 09:47	09/19/13 13:38	
sopropylbenzene	<0.00293	0.00293	0.000883	mg/Kg	<b>‡</b>	09/19/13 09:47	09/19/13 13:38	
Methyl tert-butyl ether	<0.00293	0.00293	0.000575		<del></del> .	09/19/13 09:47	09/19/13 13:38	
Methylene Chloride	<0.00293	0.00293	0.00269	mg/Kg		09/19/13 09:47	09/19/13 13:38	
n-Xylene & p-Xylene	<0.00586	0.00586	0.000984		₩.	09/19/13 09:47	09/19/13 13:38	
Naphthalene	<0.0293	0.0293	0.000785		<u>.</u>	09/19/13 09:47	09/19/13 13:38	
n-Butylbenzene	<0.00293	0.00293	0.000510	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 12:25 Date Received: 09/18/13 01:30

Client Sample ID: WCSS-17-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-7

Matrix: Solid

Matrix. Solid
Percent Solids: 89.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	<0.00293		0.00293	0.000469	mg/Kg	<del>\</del>	09/19/13 09:47	09/19/13 13:38	1
o-Xylene	<0.00293		0.00293	0.000765	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
sec-Butylbenzene	<0.00293		0.00293	0.000510	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
Styrene	<0.00293		0.00293	0.000293	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
Tert-amyl methyl ether	<0.00293		0.00293	0.00150	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
Tert-butyl ethyl ether	<0.00293		0.00293	0.00258	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
tert-Butylbenzene	<0.00293		0.00293	0.000609	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
Tetrachloroethene	<0.00293		0.00293	0.000786	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
Tetrahydrofuran	<0.0586		0.0586	0.00539	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
Toluene	<0.00293		0.00293	0.000443	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
trans-1,2-Dichloroethene	<0.00293		0.00293	0.000605	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
trans-1,3-Dichloropropene	<0.00293		0.00293	0.00258	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
Trichloroethene	<0.00293		0.00293	0.00129	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
Trichlorofluoromethane	<0.00586		0.00586	0.000554	mg/Kg	₩	09/19/13 09:47	09/19/13 13:38	1
Vinyl chloride	<0.00293		0.00293	0.000715	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
Dibromomethane	<0.00293		0.00293	0.000603	mg/Kg	₽	09/19/13 09:47	09/19/13 13:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		70 - 130				09/19/13 09:47	09/19/13 13:38	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130				09/19/13 09:47	09/19/13 13:38	1
4-Bromofluorobenzene (Surr)	102		70 - 130				09/19/13 09:47	09/19/13 13:38	1

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	C5-C8 Aliphatics (adjusted)	0.0845	J	1.40	0.0561	mg/Kg	<u></u>		09/23/13 14:26	5
	C9-C12 Aliphatics (adjusted)	<1.40		1.40	0.0561	mg/Kg	₩		09/23/13 14:26	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.0845	J	1.16	0.0462	mg/Kg	₩	09/18/13 08:33	09/19/13 12:24	5
C9-C10 Aromatics	1.70		1.16	0.0462	mg/Kg	₽	09/18/13 08:33	09/19/13 12:24	5
C9-C12 Aliphatics (unadjusted)	1.23		1.16	0.0462	mg/Kg	₽	09/18/13 08:33	09/19/13 12:24	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	76		70 - 130				09/18/13 08:33	09/19/13 12:24	5
2,5-Dibromotoluene (pid)	83		70 - 130				09/18/13 08:33	09/19/13 12:24	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.535		0.535	0.0867	mg/Kg	\$	09/18/13 05:21	09/19/13 03:59	1
Acenaphthylene	<0.535		0.535	0.0963	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Anthracene	0.164	J	0.535	0.102	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Benzo[a]anthracene	1.07		0.535	0.0813	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Benzo[a]pyrene	1.49		0.535	0.0770	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Benzo[b]fluoranthene	1.88		0.535	0.0760	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Benzo[g,h,i]perylene	1.22	В	0.535	0.0909	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Benzo[k]fluoranthene	0.890		0.535	0.0781	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
2-Methylnaphthalene	<0.535		0.535	0.105	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Chrysene	1.39		0.535	0.0952	mg/Kg	₩	09/18/13 05:21	09/19/13 03:59	1
Dibenz(a,h)anthracene	0.690	В	0.535	0.0749	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Fluoranthene	1.97		0.535	0.0942	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1

TestAmerica Buffalo

10/14/2013

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 12:25

Date Received: 09/18/13 01:30

2-Fluorobiphenyl o-Terphenyl

Client Sample ID: WCSS-17-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-7

Matrix: Solid Percent Solids: 89.1

09/19/13 03:59

09/19/13 03:59

09/18/13 05:21

09/18/13 05:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.180	J	0.535	0.107	mg/Kg	<u></u>	09/18/13 05:21	09/19/13 03:59	1
Indeno[1,2,3-cd]pyrene	1.25	В	0.535	0.0781	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Naphthalene	< 0.535		0.535	0.0899	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
Phenanthrene	1.06	В	0.535	0.107	mg/Kg	₩	09/18/13 05:21	09/19/13 03:59	1
Pyrene	1.93		0.535	0.0974	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
C11-C22 Aromatics (unadjusted)	51.4	В	5.35	2.14	mg/Kg	₽	09/18/13 05:21	09/19/13 03:59	1
C19-C36 Aliphatics	21.2		5.35	2.14	mg/Kg	<b>\$</b>	09/18/13 05:21	09/19/13 03:59	1
C9-C18 Aliphatics	2.16	J	5.35	2.14	mg/Kg	₩	09/18/13 05:21	09/19/13 03:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	36.2		5.61	5.61	mg/Kg	₩		09/20/13 10:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	53		40 - 140				09/18/13 05:21	09/19/13 03:59	1
2-Bromonaphthalene	94		40 - 140				09/18/13 05:21	09/19/13 03:59	1

40 - 140

40 - 140

112

65

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.68		1.14	0.456	mg/Kg	\$	09/18/13 10:50	09/18/13 23:09	1
Barium	30.4		0.570	0.125	mg/Kg	₽	09/18/13 10:50	09/18/13 23:09	1
Cadmium	0.199	J	0.228	0.0342	mg/Kg	₽	09/18/13 10:50	09/18/13 23:09	1
Chromium	8.24		0.570	0.228	mg/Kg	\$	09/18/13 10:50	09/18/13 23:09	1
Silver	<0.570		0.570	0.228	mg/Kg	₽	09/18/13 10:50	09/18/13 23:09	1
Lead	99.4	^	0.570	0.274	mg/Kg	₽	09/18/13 10:50	09/18/13 23:09	1
Selenium	<0.570		0.570	0.456	mg/Kg	\$	09/18/13 10:50	09/18/13 23:09	1
Antimony	<0.570	^	0.570	0.456	mg/Kg	₽	09/18/13 10:50	09/18/13 23:09	1
Beryllium	0.228		0.228	0.0319	mg/Kg	₩	09/18/13 10:50	09/18/13 23:09	1
Thallium	<1.14		1.14	0.342	mg/Kg	₽	09/18/13 10:50	09/18/13 23:09	1
Nickel	6.94		1.14	0.262	mg/Kg	₩	09/18/13 10:50	09/18/13 23:09	1
Vanadium	16.7		0.570	0.125	mg/Kg	☼	09/18/13 10:50	09/18/13 23:09	1
Zinc	68.4	В	2.85	0.174	mg/Kg		09/18/13 10:50	09/18/13 23:09	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0836	J	0.115	0.00930	mg/Kg	\$	09/18/13 08:00	09/18/13 11:43	1

**Client Sample ID: WCSS-19-(0-0.25)** Lab Sample ID: 480-45969-8

Date Collected: 09/16/13 12:35 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 94.0

Analyte	Result (	Qualifier R	_ MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.08	1.1	0.455	mg/Kg	<del>\</del>	09/18/13 10:50	09/18/13 23:11	1
Barium	65.3	0.56	0.125	mg/Kg	₽	09/18/13 10:50	09/18/13 23:11	1
Cadmium	0.697	0.22	7 0.0341	mg/Kg	₽	09/18/13 10:50	09/18/13 23:11	1
Chromium	12.5	0.56	0.227	mg/Kg	₽	09/18/13 10:50	09/18/13 23:11	1
Silver	<0.569	0.56	0.227	mg/Kg	₽	09/18/13 10:50	09/18/13 23:11	1
Lead	239 /	0.56	0.273	mg/Kg	₽	09/18/13 10:50	09/18/13 23:11	1
Selenium	<0.569	0.56	0.455	mg/Kg	<b>*</b>	09/18/13 10:50	09/18/13 23:11	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 12:35 Date Received: 09/18/13 01:30

Client Sample ID: WCSS-19-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-8

Percent Solids: 94.0

·u	Gampio	 	.0000	•
		Ma	trix: So	lid

09/18/13 11:45

Lab Sample ID: 480-45969-9

09/18/13 08:00

Method: 6010 - Metals (ICP) (Continu	ed)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.569	٨	0.569	0.455	mg/Kg	<del>\</del>	09/18/13 10:50	09/18/13 23:11	1
Beryllium	0.803		0.227	0.0318	mg/Kg	₽	09/18/13 10:50	09/18/13 23:11	1
Thallium	<1.14		1.14	0.341	mg/Kg	₩	09/18/13 10:50	09/18/13 23:11	1
Nickel	15.1		1.14	0.262	mg/Kg	₩	09/18/13 10:50	09/18/13 23:11	1
Vanadium	20.9		0.569	0.125	mg/Kg	₽	09/18/13 10:50	09/18/13 23:11	1
Zinc	213	В	2.84	0.174	mg/Kg	\$	09/18/13 10:50	09/18/13 23:11	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: WCSS-20-(0-0.25)

0.363

Date Collected: 09/16/13 12:45

Mercury

**Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 88.0

0.0979

0.00793 mg/Kg

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	29.8		1.16	0.465	mg/Kg	<del>\</del>	09/18/13 10:50	09/18/13 23:13	1
Barium	310		0.581	0.128	mg/Kg	₽	09/18/13 10:50	09/18/13 23:13	1
Cadmium	18.5		0.232	0.0349	mg/Kg	₩	09/18/13 10:50	09/18/13 23:13	1
Chromium	48.0		0.581	0.232	mg/Kg	\$	09/18/13 10:50	09/18/13 23:13	1
Silver	0.714		0.581	0.232	mg/Kg	₽	09/18/13 10:50	09/18/13 23:13	1
Lead	3280	^	0.581	0.279	mg/Kg	₽	09/18/13 10:50	09/18/13 23:13	1
Selenium	2.37		0.581	0.465	mg/Kg	₽	09/18/13 10:50	09/18/13 23:13	1
Antimony	3.56	<b>A</b>	0.581	0.465	mg/Kg	₩	09/18/13 10:50	09/18/13 23:13	1
Beryllium	1.14		0.232	0.0325	mg/Kg	₽	09/18/13 10:50	09/18/13 23:13	1
Thallium	<1.16		1.16	0.349	mg/Kg	₩	09/18/13 10:50	09/18/13 23:13	1
Nickel	256		1.16	0.267	mg/Kg	₩	09/18/13 10:50	09/18/13 23:13	1
Vanadium	34.8		0.581	0.128	mg/Kg	₩	09/18/13 10:50	09/18/13 23:13	1
Zinc	1950	В	2.91	0.178	mg/Kg	₽	09/18/13 10:50	09/18/13 23:13	1
Method: 7471A - Mercury (CVAA)									
Δnalyte	Result	Qualifier	RI	MDI	Unit	D	Prepared	Analyzed	Dil Fac

₩ 1.11 09/18/13 08:00 09/18/13 14:11 Mercury 3.65 0.0899 mg/Kg

Client Sample ID: WCSS-21-(0-0.25) Lab Sample ID: 480-45969-10 Date Collected: 09/16/13 11:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 95.1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00230	0.00230	0.000460	mg/Kg	<del>\tilde{\pi}</del>	09/19/13 09:47	09/19/13 14:04	1
1,1,1-Trichloroethane	<0.00230	0.00230	0.000334	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
1,1,2,2-Tetrachloroethane	<0.00230	0.00230	0.000746	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
1,1,2-Trichloroethane	<0.00230	0.00230	0.000598	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
1,1-Dichloroethane	<0.00230	0.00230	0.000561	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
1,1-Dichloroethene	<0.00230	0.00230	0.000563	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
1,1-Dichloropropene	<0.00230	0.00230	0.000653	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
1,2,3-Trichlorobenzene	<0.00230	0.00230	0.000488	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
1,2,3-Trichloropropane	<0.00230	0.00230	0.000468	mg/Kg	☼	09/19/13 09:47	09/19/13 14:04	1

TestAmerica Buffalo

10/14/2013

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 11:30

Client Sample ID: WCSS-21-(0-0.25)

TestAmerica Job ID: 480-45969-1

Matrix: Solid Percent Solids: 95.1

Lab Sample ID: 480-45969-10

Date R	Received: 09/18/13 01:30		
Metho	od: 8260C - Volatile Organic Comp	oounds (GC/MS) (Continued)	

Analyte	Result	Qualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.00230	0.00230	0.000279	mg/Kg	<del>\</del>	09/19/13 09:47	09/19/13 14:04	1
1,2,4-Trimethylbenzene	<0.00230	0.00230	0.000883	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
1,2-Dibromo-3-Chloropropane	<0.0230	0.0230	0.00230	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
1,2-Dichlorobenzene	<0.00230	0.00230	0.000359	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
1,2-Dichloroethane	<0.00230	0.00230	0.000231	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
1,2-Dichloropropane	<0.00230	0.00230	0.00230	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	•
1,3,5-Trimethylbenzene	<0.00230	0.00230	0.000296	mg/Kg	φ.	09/19/13 09:47	09/19/13 14:04	
1,3-Dichlorobenzene	<0.00230	0.00230	0.000236	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
1,3-Dichloropropane	<0.00230	0.00230	0.000276	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
1,4-Dichlorobenzene	<0.00230	0.00230	0.000644	mg/Kg		09/19/13 09:47	09/19/13 14:04	
1,4-Dioxane	<0.230	* 0.230	0.0222	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
2,2-Dichloropropane	<0.00230	0.00230	0.000781	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
2-Butanone (MEK)	<0.0230	* 0.0230	0.00168	mg/Kg		09/19/13 09:47	09/19/13 14:04	
2-Chlorotoluene	<0.00230	0.00230	0.000302		₽	09/19/13 09:47	09/19/13 14:04	
2-Hexanone	<0.0230	0.0230	0.00230		₽	09/19/13 09:47	09/19/13 14:04	
4-Chlorotoluene	<0.00230	0.00230	0.000542			09/19/13 09:47	09/19/13 14:04	1
4-Isopropyltoluene	<0.00230	0.00230	0.000369	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
4-Methyl-2-pentanone (MIBK)	<0.0230	0.0230	0.00151	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	
Acetone	<0.230	0.230	0.00387			09/19/13 09:47	09/19/13 14:04	
Benzene	<0.00230	0.00230	0.000225	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
Bromobenzene	<0.00230	0.00230	0.000809	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
Bromoform	<0.00230	0.00230	0.00230	mg/Kg		09/19/13 09:47	09/19/13 14:04	
Bromomethane	<0.00460	0.00460	0.000414		₩	09/19/13 09:47	09/19/13 14:04	
Carbon disulfide	<0.00230	0.00230	0.00230	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
Carbon tetrachloride	<0.00230	0.00230	0.000445			09/19/13 09:47	09/19/13 14:04	
Chlorobenzene	<0.00230	0.00230	0.000607		₩	09/19/13 09:47	09/19/13 14:04	
Chlorobromomethane	<0.00230	0.00230	0.000332		₩	09/19/13 09:47	09/19/13 14:04	
Chlorodibromomethane	<0.00230	0.00230	0.000588			09/19/13 09:47	09/19/13 14:04	
Chloroethane	< 0.00460	0.00460	0.00104		₩	09/19/13 09:47	09/19/13 14:04	
Chloroform	<0.00230	0.00230	0.000284		₩	09/19/13 09:47	09/19/13 14:04	
Chloromethane	<0.00460	0.00460	0.000204	mg/Kg		09/19/13 09:47	09/19/13 14:04	· · · · · .
cis-1,2-Dichloroethene	<0.00230	0.00230	0.000276	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	
cis-1,3-Dichloropropene	<0.00230	0.00230	0.000662		₩	09/19/13 09:47	09/19/13 14:04	
Dichlorobromomethane	<0.00230	0.00230	0.000616			09/19/13 09:47	09/19/13 14:04	
Dichlorodifluoromethane	<0.00230	0.00230	0.000380	mg/Kg		09/19/13 09:47	09/19/13 14:04	
Ethyl ether	<0.00400	0.00230	0.000380		₩	09/19/13 09:47	09/19/13 14:04	
Ethylbenzene	<0.00230	0.00230				09/19/13 09:47	09/19/13 14:04	
Ethylene Dibromide			0.000317		₩			
•	<0.00230	0.00230	0.000590		₽	09/19/13 09:47	09/19/13 14:04	
Hexachlorobutadiene	<0.00230	0.00230	0.000539			09/19/13 09:47	09/19/13 14:04	
Isopropyl ether	<0.00230	0.00230	0.00230		<b>₽</b>	09/19/13 09:47	09/19/13 14:04	•
Isopropylbenzene	<0.00230	0.00230	0.000693		<b>₽</b>	09/19/13 09:47	09/19/13 14:04	
Methyl tert-butyl ether	<0.00230	0.00230	0.000451	mg/Kg	<del>,</del>	09/19/13 09:47	09/19/13 14:04	
Methylene Chloride	<0.00230	0.00230	0.00211		<b>₽</b>	09/19/13 09:47	09/19/13 14:04	•
m-Xylene & p-Xylene	<0.00460	0.00460	0.000772		₽	09/19/13 09:47	09/19/13 14:04	
Naphthalene	<0.0230	0.0230	0.000616			09/19/13 09:47	09/19/13 14:04	
n-Butylbenzene	<0.00230	0.00230	0.000400		₩.	09/19/13 09:47	09/19/13 14:04	
N-Propylbenzene	<0.00230	0.00230	0.000368	mg/Kg	₩.	09/19/13 09:47	09/19/13 14:04	•
o-Xylene	<0.00230	0.00230	0.000600	mg/Kg		09/19/13 09:47	09/19/13 14:04	
sec-Butylbenzene	<0.00230	0.00230	0.000400	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 11:30

Date Received: 09/18/13 01:30

C5-C8 Aliphatics (adjusted)

C9-C12 Aliphatics (adjusted)

Client Sample ID: WCSS-21-(0-0.25)

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Result Qualifier

0.0552 J

0.0591 J

TestAmerica Job ID: 480-45969-1

6

Lab Sample ID: 480-45969-10

Matrix: Solid

Percent Solids: 95.1

А

5

8

11

13

15

Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.00230		0.00230	0.000230	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
Tert-amyl methyl ether	<0.00230		0.00230	0.00118	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
Tert-butyl ethyl ether	<0.00230		0.00230	0.00202	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
tert-Butylbenzene	<0.00230		0.00230	0.000478	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
Tetrachloroethene	<0.00230		0.00230	0.000617	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
Tetrahydrofuran	<0.0460		0.0460	0.00423	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
Toluene	<0.00230		0.00230	0.000348	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
trans-1,2-Dichloroethene	<0.00230		0.00230	0.000474	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
trans-1,3-Dichloropropene	<0.00230		0.00230	0.00202	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
Trichloroethene	<0.00230		0.00230	0.00101	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
Trichlorofluoromethane	<0.00460		0.00460	0.000435	mg/Kg	₩	09/19/13 09:47	09/19/13 14:04	1
Vinyl chloride	<0.00230		0.00230	0.000561	mg/Kg	<b>\$</b>	09/19/13 09:47	09/19/13 14:04	1
Dibromomethane	<0.00230		0.00230	0.000473	mg/Kg	₽	09/19/13 09:47	09/19/13 14:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130				09/19/13 09:47	09/19/13 14:04	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				09/19/13 09:47	09/19/13 14:04	1
4-Bromofluorobenzene (Surr)	97		70 - 130				09/19/13 09:47	09/19/13 14:04	1

Method: MAVPH - Massachuset	ts - Volatile Pet	roleum Hyd	Irocarbons (G	C)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.0636	J	0.144	0.00576	mg/Kg	₽	09/18/13 08:33	09/19/13 16:07	1
C9-C10 Aromatics	0.319		0.144	0.00576	mg/Kg	₽	09/18/13 08:33	09/19/13 16:07	1
C9-C12 Aliphatics (unadjusted)	0.383		0.144	0.00576	mg/Kg	₩	09/18/13 08:33	09/19/13 16:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	76		70 - 130				09/18/13 08:33	09/19/13 16:07	1
2,5-Dibromotoluene (pid)	81		70 - 130				09/18/13 08:33	09/19/13 16:07	1

0.263

0.263

MDL Unit

0.0105 mg/Kg

0.0105 mg/Kg

Prepared

₩

₩

Analyzed

09/23/13 14:26

09/23/13 14:26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.495		0.495	0.0802	mg/Kg	*	09/18/13 05:21	09/19/13 04:28	1
Acenaphthylene	<0.495		0.495	0.0891	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Anthracene	0.193	J	0.495	0.0941	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Benzo[a]anthracene	0.706		0.495	0.0753	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Benzo[a]pyrene	1.17		0.495	0.0713	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Benzo[b]fluoranthene	1.34		0.495	0.0703	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Benzo[g,h,i]perylene	0.876	В	0.495	0.0842	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Benzo[k]fluoranthene	0.652		0.495	0.0723	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
2-Methylnaphthalene	<0.495		0.495	0.0971	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Chrysene	0.999		0.495	0.0881	mg/Kg		09/18/13 05:21	09/19/13 04:28	1
Dibenz(a,h)anthracene	0.644	В	0.495	0.0693	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Fluoranthene	1.90		0.495	0.0872	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Fluorene	0.163	J	0.495	0.0990	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Indeno[1,2,3-cd]pyrene	0.947	В	0.495	0.0723	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
Naphthalene	< 0.495		0.495	0.0832	mg/Kg	₩	09/18/13 05:21	09/19/13 04:28	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 11:30

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-21-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-10

Matrix: Solid

Dil Fac

Percent Solids: 95.1

Analyzed

Method: MA-EPH - Massachusetts	- Extractable	Petroleum I	Hydrocarbons	s (GC) (Co	ontinued)		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared
Phenanthrene	0.929	В	0.495	0.0990	mg/Kg	₩	09/18/13 05:21
Pyrene	1.27		0.495	0.0901	mg/Kg	\$	09/18/13 05:21
C11-C22 Aromatics (unadjusted)	44.8	В	4.95	1.98	mg/Kg	₽	09/18/13 05:21

Phenanthrene	0.929	В	0.495	0.0990	mg/Kg	<del>-</del>	09/18/13 05:21	09/19/13 04:28	1
Pyrene	1.27		0.495	0.0901	mg/Kg	₽	09/18/13 05:21	09/19/13 04:28	1
C11-C22 Aromatics (unadjusted)	44.8	В	4.95	1.98	mg/Kg	₩	09/18/13 05:21	09/19/13 04:28	1
C19-C36 Aliphatics	54.4		4.95	1.98	mg/Kg	\$	09/18/13 05:21	09/19/13 04:28	1
C9-C18 Aliphatics	3.73	J	4.95	1.98	mg/Kg	≎	09/18/13 05:21	09/19/13 04:28	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	33.1		5.26	5.26	mg/Kg	<del></del>		09/20/13 10:00	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	27 X	40 - 140	09/18/13 05:21	09/19/13 04:28	1
2-Bromonaphthalene	91	40 - 140	09/18/13 05:21	09/19/13 04:28	1
2-Fluorobiphenyl	112	40 - 140	09/18/13 05:21	09/19/13 04:28	1
o-Terphenyl	30 X	40 - 140	09/18/13 05:21	09/19/13 04:28	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.91		0.954	0.382	mg/Kg	<del>\</del>	09/18/13 10:50	09/18/13 23:16	1
Barium	75.5		0.477	0.105	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Cadmium	4.53		0.191	0.0286	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Chromium	305		0.477	0.191	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Silver	0.825		0.477	0.191	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Lead	418	^	0.477	0.229	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Selenium	1.93		0.477	0.382	mg/Kg	\$	09/18/13 10:50	09/18/13 23:16	1
Antimony	4.66	^	0.477	0.382	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Beryllium	0.461		0.191	0.0267	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Thallium	<0.954		0.954	0.286	mg/Kg	\$	09/18/13 10:50	09/18/13 23:16	1
Nickel	100		0.954	0.220	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Vanadium	29.5		0.477	0.105	mg/Kg	₽	09/18/13 10:50	09/18/13 23:16	1
Zinc	596	В	2.39	0.146	mg/Kg		09/18/13 10:50	09/18/13 23:16	1

Method: 7471A - Mercury (CVAA)							
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.30	0.485	0.0393 mg/Kg	<del></del>	09/18/13 08:00	09/18/13 14:13	5

Client Sample ID: WCSS-22-(0-0.25) Lab Sample ID: 480-45969-11

Date Collected: 09/16/13 10:45 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 94.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.29		0.977	0.391	mg/Kg	₩	09/18/13 10:50	09/18/13 23:18	1
Barium	124		0.488	0.107	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Cadmium	3.15		0.195	0.0293	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Chromium	66.7		0.488	0.195	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Silver	0.783		0.488	0.195	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Lead	668	^	0.488	0.234	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Selenium	1.38		0.488	0.391	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Antimony	2.90	^	0.488	0.391	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Beryllium	1.96		0.195	0.0274	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Thallium	<0.977		0.977	0.293	mg/Kg	₩.	09/18/13 10:50	09/18/13 23:18	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

Client Sample ID: WCSS-22-(0-0.25)

Date Collected: 09/16/13 10:45
Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-11

Matrix: Solid

Percent Solids: 94.2

Method: 6010 - M	etals (ICP) (Continued)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	129		0.977	0.225	mg/Kg	\$	09/18/13 10:50	09/18/13 23:18	1
Vanadium	22.4		0.488	0.107	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Zinc	1330	В	2.44	0.149	mg/Kg	₽	09/18/13 10:50	09/18/13 23:18	1
Method: 7471A - I	Mercury (CVAA)								

 Analyte
 Result Mercury
 Qualifier
 RL 0.968
 MDL 0.0784
 Unit mg/Kg
 D 0.9/18/13 08:00
 Prepared Prepared 0.9/18/13 14:17
 Analyzed Dil Fac 0.9/18/13 08:00
 Dil Fac 0.9/18/13 08:00

Client Sample ID: WCSS-23-(0-0.25)

Lab Sample ID: 480-45969-12

Date Collected: 09/16/13 13:10
Date Received: 09/18/13 01:30
Matrix: Solid
Percent Solids: 94.7

Pate Received: 09/18/13 01:30									ds: 94.7
Method: 8260C - Volatile Organ Analyte	•	GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.0977		0.0977	0.0195	mg/Kg	<u></u>	09/18/13 14:57	09/20/13 01:48	1
1,1,1-Trichloroethane	<0.0977		0.0977	0.0142	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,1,2,2-Tetrachloroethane	<0.0977		0.0977	0.0317	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,1,2-Trichloroethane	<0.0977		0.0977	0.0254	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
1,1-Dichloroethane	<0.0977		0.0977	0.0238	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,1-Dichloroethene	<0.0977		0.0977	0.0239	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,1-Dichloropropene	<0.0977		0.0977	0.0277	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
1,2,3-Trichlorobenzene	<0.0977		0.0977	0.0208	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,2,3-Trichloropropane	<0.0977		0.0977	0.0199	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,2,4-Trichlorobenzene	<0.0977		0.0977	0.0119	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
1,2,4-Trimethylbenzene	<0.0977		0.0977	0.0375	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,2-Dibromo-3-Chloropropane	< 0.977		0.977	0.0977	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,2-Dichlorobenzene	<0.0977		0.0977	0.0153	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
1,2-Dichloroethane	<0.0977		0.0977	0.00981	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,2-Dichloropropane	<0.0977		0.0977	0.0977	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,3,5-Trimethylbenzene	<0.0977		0.0977	0.0126	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
1,3-Dichlorobenzene	< 0.0977		0.0977	0.0100	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
1,3-Dichloropropane	<0.0977		0.0977	0.0117	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	
1,4-Dichlorobenzene	<0.0977		0.0977	0.0274	mg/Kg	₩.	09/18/13 14:57	09/20/13 01:48	1
1,4-Dioxane	<9.77		9.77	0.942	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	
2,2-Dichloropropane	<0.0977		0.0977	0.0332	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
2-Butanone (MEK)	<0.977	*	0.977	0.0715	mg/Kg		09/18/13 14:57	09/20/13 01:48	
2-Chlorotoluene	<0.0977		0.0977	0.0128	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
2-Hexanone	< 0.977		0.977	0.0977	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
4-Chlorotoluene	<0.0977		0.0977	0.0231	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	
4-Isopropyltoluene	< 0.0977		0.0977	0.0157	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
4-Methyl-2-pentanone (MIBK)	< 0.977		0.977	0.0641	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Acetone	<9.77		9.77	0.165	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
Benzene	< 0.0977		0.0977	0.00958	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Bromobenzene	<0.0977		0.0977	0.0344	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Bromoform	<0.0977		0.0977	0.0977	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Bromomethane	0.0474	J	0.195	0.0176	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	
Carbon disulfide	<0.0977		0.0977	0.0977	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Carbon tetrachloride	<0.0977		0.0977	0.0189	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
Chlorobenzene	<0.0977		0.0977	0.0258	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Chlorobromomethane	<0.0977		0.0977	0.0141	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 13:10

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-23-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-12

Matrix: Solid

Percent Solids: 94.7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	<0.0977		0.0977	0.0250	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Chloroethane	<0.195		0.195	0.0442	mg/Kg	\$	09/18/13 14:57	09/20/13 01:48	1
Chloroform	<0.0977		0.0977	0.0121	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Chloromethane	0.0532	J	0.195	0.0118	mg/Kg	\$	09/18/13 14:57	09/20/13 01:48	1
cis-1,2-Dichloroethene	0.0363	J	0.0977	0.0250	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
cis-1,3-Dichloropropene	< 0.0977		0.0977	0.0281	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Dichlorobromomethane	<0.0977		0.0977	0.0262	mg/Kg	\$	09/18/13 14:57	09/20/13 01:48	1
Dichlorodifluoromethane	0.120	J	0.195	0.0161	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Ethyl ether	< 0.0977		0.0977	0.0821	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Ethylbenzene	<0.0977		0.0977	0.0135	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Ethylene Dibromide	<0.0977		0.0977	0.0251	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Hexachlorobutadiene	<0.0977		0.0977	0.0229	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Isopropyl ether	<0.0977		0.0977	0.0977	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
Isopropylbenzene	< 0.0977		0.0977	0.0295	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Methyl tert-butyl ether	< 0.0977		0.0977	0.0192	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Methylene Chloride	<0.0977		0.0977	0.0899	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
m-Xylene & p-Xylene	<0.195		0.195	0.0328	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Naphthalene	0.0337	J	0.977	0.0262	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
n-Butylbenzene	<0.0977		0.0977	0.0170	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
N-Propylbenzene	<0.0977		0.0977	0.0156	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
o-Xylene	< 0.0977		0.0977	0.0255	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
sec-Butylbenzene	<0.0977		0.0977	0.0170	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
Styrene	<0.0977		0.0977	0.00977	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Tert-amyl methyl ether	< 0.0977		0.0977	0.0500	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Tert-butyl ethyl ether	<0.0977		0.0977	0.0860	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
tert-Butylbenzene	< 0.0977		0.0977	0.0203	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Tetrachloroethene	1.59		0.0977	0.0262	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Tetrahydrofuran	<1.95		1.95	0.180	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
Toluene	<0.0977		0.0977	0.0148	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
trans-1,2-Dichloroethene	< 0.0977		0.0977	0.0202	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
trans-1,3-Dichloropropene	<0.0977		0.0977	0.0860	mg/Kg		09/18/13 14:57	09/20/13 01:48	1
Trichloroethene	0.110		0.0977	0.0430	mg/Kg	₩	09/18/13 14:57	09/20/13 01:48	1
Trichlorofluoromethane	0.0379	J	0.195	0.0185	mg/Kg	₽	09/18/13 14:57	09/20/13 01:48	1
Vinyl chloride	0.0509	J	0.0977	0.0238	mg/Kg	φ.	09/18/13 14:57	09/20/13 01:48	1
Dibromomethane	<0.0977		0.0977	0.0201	ma/Ka	⇔	09/18/13 14:57	09/20/13 01:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130	09/18/13 14:5	7 09/20/13 01:48	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130	09/18/13 14:5	7 09/20/13 01:48	1
4-Bromofluorobenzene (Surr)	98		70 - 130	09/18/13 14:5	7 09/20/13 01:48	1

Method: MA VPH - Massachusetts	- Volatile Petro	leum Hydro	carbons (GC	<b>;</b> )					
Analyte	Result Qu	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.411 J		2.64	0.106	mg/Kg	<b>‡</b>		09/23/13 14:27	10
C9-C12 Aliphatics (adjusted)	<2.64		2.64	0.106	ma/Ka	₽		09/23/13 14:27	10

Method: MAVPH - Massachusetts	- Volatile Pet	roleum Hydr	ocarbons (G	iC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.411	J	2.03	0.0811	mg/Kg	₽	09/18/13 08:33	09/18/13 15:05	10
C9-C10 Aromatics	2.34		2.03	0.0811	mg/Kg	₽	09/18/13 08:33	09/18/13 15:05	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-12

Matrix: Solid

Percent Solids: 94.7

Client Sample ID: WCSS-23-(0-0.25)

Date Collected: 09/16/13 13:10

Date Received: 09/18/13 01:30

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
C9-C12 Aliphatics (unadjusted)	2.21		2.03	0.0811	mg/Kg	<del>\</del>	09/18/13 08:33	09/18/13 15:05	10		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
2,5-Dibromotoluene (fid)	76		70 - 130				09/18/13 08:33	09/18/13 15:05	10		
2,5-Dibromotoluene (pid)	84		70 - 130				09/18/13 08:33	09/18/13 15:05	10		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.176	J	0.517	0.0838	mg/Kg	<u> </u>	09/18/13 05:21	09/19/13 04:58	1
Acenaphthylene	0.354	J	0.517	0.0931	mg/Kg	₩	09/18/13 05:21	09/19/13 04:58	1
Anthracene	0.397	J	0.517	0.0982	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Benzo[a]anthracene	2.00		0.517	0.0786	mg/Kg	<b>\$</b>	09/18/13 05:21	09/19/13 04:58	1
Benzo[a]pyrene	3.00		0.517	0.0745	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Benzo[b]fluoranthene	3.18		0.517	0.0734	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Benzo[g,h,i]perylene	2.45	В	0.517	0.0879	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Benzo[k]fluoranthene	1.43		0.517	0.0755	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
2-Methylnaphthalene	0.133	J	0.517	0.101	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Chrysene	2.53		0.517	0.0920	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Dibenz(a,h)anthracene	1.24	В	0.517	0.0724	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Fluoranthene	2.78		0.517	0.0910	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Fluorene	0.302	J	0.517	0.103	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Indeno[1,2,3-cd]pyrene	2.45	В	0.517	0.0755	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Naphthalene	0.116	J	0.517	0.0869	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Phenanthrene	1.29	В	0.517	0.103	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
Pyrene	3.16		0.517	0.0941	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
C11-C22 Aromatics (unadjusted)	128	В	5.17	2.07	mg/Kg	₽	09/18/13 05:21	09/19/13 04:58	1
C19-C36 Aliphatics	221		5.17	2.07	mg/Kg	<b>\$</b>	09/18/13 05:21	09/19/13 04:58	1
C9-C18 Aliphatics	59.0		5.17	2.07	mg/Kg	₩	09/18/13 05:21	09/19/13 04:58	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	101		5.28	5.28	mg/Kg	<del></del>		09/20/13 10:00	1

Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	19 X	40 - 140	09/18/13 05:21	09/19/13 04:58	1
2-Bromonaphthalene	90	40 - 140	09/18/13 05:21	09/19/13 04:58	1
2-Fluorobiphenyl	108	40 - 140	09/18/13 05:21	09/19/13 04:58	1
o-Terphenyl	22 X	40 - 140	09/18/13 05:21	09/19/13 04:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	34.4		1.07	0.429	mg/Kg	*	09/18/13 10:50	09/18/13 23:20	1
Barium	4750		5.36	1.18	mg/Kg	₩	09/18/13 10:50	09/19/13 15:10	10
Cadmium	14.6		0.214	0.0322	mg/Kg	₩	09/18/13 10:50	09/18/13 23:20	1
Chromium	119		0.536	0.214	mg/Kg	₽	09/18/13 10:50	09/18/13 23:20	1
Silver	2.13		0.536	0.214	mg/Kg	₩	09/18/13 10:50	09/18/13 23:20	1
Lead	13100		5.36	2.57	mg/Kg	₽	09/18/13 10:50	09/19/13 15:10	10
Selenium	4.77		0.536	0.429	mg/Kg	*	09/18/13 10:50	09/18/13 23:20	1
Antimony	112	^	0.536	0.429	mg/Kg	₩	09/18/13 10:50	09/18/13 23:20	1
Beryllium	1.21		0.214	0.0300	mg/Kg	₽	09/18/13 10:50	09/18/13 23:20	1
Thallium	<1.07		1.07	0.322	mg/Kg	₽	09/18/13 10:50	09/18/13 23:20	1
Nickel	109		1.07	0.247	mg/Kg	₩	09/18/13 10:50	09/18/13 23:20	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-12

Matrix: Solid

Percent Solids: 94.7

Clie	nt	Sa	ım	ple	ID:	W	CS	S-23-(	(0-0.25)
	_								

Date Collected: 09/16/13 13:10 Date Received: 09/18/13 01:30

Method: 6010 - Metals (ICP) (Continu	red)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	46.6		0.536	0.118	mg/Kg	₩	09/18/13 10:50	09/18/13 23:20	1
Zinc	10000	В	26.8	1.64	mg/Kg	<b>\$</b>	09/18/13 10:50	09/19/13 15:10	10
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	6.55		2.18	0.176	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 14:23	20

Client Sample ID: WCSS-25-(0-0.25)

Date Collected: 09/16/13 13:35

Lab Sample ID: 480-45969-13 Matrix: Solid

Date Received: 09/18/13 01:30	Percent Solids: 82.2
Method: 8260C - Volatile Organic Compounds (GC/MS)	

Analyte	Result Qualifi	er RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00514	0.00514	0.00103	mg/Kg	<del>*</del>	09/19/13 09:47	09/19/13 14:29	1
1,1,1-Trichloroethane	<0.00514	0.00514	0.000746	mg/Kg	₩	09/19/13 09:47	09/19/13 14:29	1
1,1,2,2-Tetrachloroethane	<0.00514	0.00514	0.00167	mg/Kg	₩	09/19/13 09:47	09/19/13 14:29	1
1,1,2-Trichloroethane	<0.00514	0.00514	0.00134	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,1-Dichloroethane	<0.00514	0.00514	0.00125	mg/Kg	₩	09/19/13 09:47	09/19/13 14:29	1
1,1-Dichloroethene	<0.00514	0.00514	0.00126	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,1-Dichloropropene	<0.00514	0.00514	0.00146	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,2,3-Trichlorobenzene	<0.00514	0.00514	0.00109	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,2,3-Trichloropropane	<0.00514	0.00514	0.00105	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,2,4-Trichlorobenzene	<0.00514	0.00514	0.000624	mg/Kg	<b>\$</b>	09/19/13 09:47	09/19/13 14:29	1
1,2,4-Trimethylbenzene	<0.00514	0.00514	0.00197	mg/Kg	₩	09/19/13 09:47	09/19/13 14:29	1
1,2-Dibromo-3-Chloropropane	<0.0514	0.0514	0.00514	mg/Kg	₩	09/19/13 09:47	09/19/13 14:29	1
1,2-Dichlorobenzene	<0.00514	0.00514	0.000803	mg/Kg		09/19/13 09:47	09/19/13 14:29	1
1,2-Dichloroethane	<0.00514	0.00514	0.000516	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,2-Dichloropropane	<0.00514	0.00514	0.00514	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,3,5-Trimethylbenzene	<0.00514	0.00514	0.000661	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,3-Dichlorobenzene	<0.00514	0.00514	0.000528	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,3-Dichloropropane	<0.00514	0.00514	0.000616	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
1,4-Dichlorobenzene	<0.00514	0.00514	0.00144	mg/Kg		09/19/13 09:47	09/19/13 14:29	1
1,4-Dioxane	<0.514 *	0.514	0.0495	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
2,2-Dichloropropane	<0.00514	0.00514	0.00175	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
2-Butanone (MEK)	<0.0514 *	0.0514	0.00376	mg/Kg		09/19/13 09:47	09/19/13 14:29	1
2-Chlorotoluene	<0.00514	0.00514	0.000674		₽	09/19/13 09:47	09/19/13 14:29	1
2-Hexanone	<0.0514	0.0514	0.00514	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
4-Chlorotoluene	<0.00514	0.00514	0.00121	mg/Kg		09/19/13 09:47	09/19/13 14:29	1
4-Isopropyltoluene	<0.00514	0.00514	0.000824	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
4-Methyl-2-pentanone (MIBK)	<0.0514	0.0514	0.00337	mg/Kg	₩	09/19/13 09:47	09/19/13 14:29	1
Acetone	<0.514	0.514	0.00865	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Benzene	<0.00514	0.00514	0.000503	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Bromobenzene	<0.00514	0.00514	0.00181	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Bromoform	<0.00514	0.00514	0.00514	mg/Kg		09/19/13 09:47	09/19/13 14:29	1
Bromomethane	<0.0103	0.0103	0.000924	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Carbon disulfide	<0.00514	0.00514	0.00514		₩	09/19/13 09:47	09/19/13 14:29	1
Carbon tetrachloride	<0.00514	0.00514	0.000994	mg/Kg	 ☆	09/19/13 09:47	09/19/13 14:29	1
Chlorobenzene	<0.00514	0.00514	0.00136		₩	09/19/13 09:47	09/19/13 14:29	1
Chlorobromomethane	<0.00514	0.00514	0.000742		₽	09/19/13 09:47	09/19/13 14:29	1
Chlorodibromomethane	<0.00514	0.00514	0.00131		· · · · · ·	09/19/13 09:47	09/19/13 14:29	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-13

Matrix: Solid Percent Solids: 82.2

Client Sample ID: WCSS-25-(0-0.25)

Date Collected: 09/16/13 13:35 Date Received: 09/18/13 01:30

Method: 8260C - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	<0.0103		0.0103	0.00232	mg/Kg	<del>\</del>	09/19/13 09:47	09/19/13 14:29	1
Chloroform	<0.00514		0.00514	0.000635	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Chloromethane	<0.0103		0.0103	0.000620	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
cis-1,2-Dichloroethene	< 0.00514		0.00514	0.00131	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
cis-1,3-Dichloropropene	<0.00514		0.00514	0.00148	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Dichlorobromomethane	<0.00514		0.00514	0.00138	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Dichlorodifluoromethane	<0.0103		0.0103	0.000848	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Ethyl ether	< 0.00514		0.00514	0.00431	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Ethylbenzene	<0.00514		0.00514	0.000709	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Ethylene Dibromide	<0.00514		0.00514	0.00132	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Hexachlorobutadiene	<0.00514		0.00514	0.00120	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Isopropyl ether	<0.00514		0.00514	0.00514	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Isopropylbenzene	<0.00514		0.00514	0.00155	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Methyl tert-butyl ether	<0.00514		0.00514	0.00101	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Methylene Chloride	<0.00514		0.00514	0.00472	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
m-Xylene & p-Xylene	<0.0103		0.0103	0.00173	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Naphthalene	<0.0514		0.0514	0.00138	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
n-Butylbenzene	<0.00514		0.00514	0.000894	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
N-Propylbenzene	<0.00514		0.00514	0.000822	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
o-Xylene	<0.00514		0.00514	0.00134	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
sec-Butylbenzene	<0.00514		0.00514	0.000894	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Styrene	<0.00514		0.00514	0.000514	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Tert-amyl methyl ether	<0.00514		0.00514	0.00263	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Tert-butyl ethyl ether	<0.00514		0.00514	0.00452	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
tert-Butylbenzene	<0.00514		0.00514	0.00107	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Tetrachloroethene	<0.00514		0.00514	0.00138	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Tetrahydrofuran	<0.103		0.103	0.00945	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Toluene	<0.00514		0.00514	0.000776	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
trans-1,2-Dichloroethene	<0.00514		0.00514	0.00106	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
trans-1,3-Dichloropropene	<0.00514		0.00514	0.00452	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Trichloroethene	< 0.00514		0.00514	0.00226	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Trichlorofluoromethane	<0.0103		0.0103	0.000972	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Vinyl chloride	<0.00514		0.00514	0.00125	mg/Kg	₽	09/19/13 09:47	09/19/13 14:29	1
Dibromomethane	<0.00514		0.00514	0.00106	mg/Kg	₩	09/19/13 09:47	09/19/13 14:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130				09/19/13 09:47	09/19/13 14:29	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				09/19/13 09:47	09/19/13 14:29	1
4-Bromofluorobenzene (Surr)	97		70 - 130				09/19/13 09:47	09/19/13 14:29	1

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ı	Mothod: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D Prepa	ared Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.127	J	1.52	0.0608	mg/Kg	<del>*</del>	09/23/13 14:26	5
C9-C12 Alinhatics (adjusted)	<1.52		1.52	0.0608	ma/Ka	÷	00/23/13 14:26	5

motification massacriuscits	Volutilo i ot	i Olouiii i i y c							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.127	J	1.37 0.	0549	mg/Kg	<del></del>	09/18/13 08:33	09/19/13 13:02	5
C9-C10 Aromatics	0.867	J	1.37 0.	0549	mg/Kg	₩	09/18/13 08:33	09/19/13 13:02	5
C9-C12 Aliphatics (unadjusted)	0.802	J	1.37 0.	0549	mg/Kg	₩	09/18/13 08:33	09/19/13 13:02	5

TestAmerica Buffalo

10/14/2013

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-13

Matrix: Solid

Percent Solids: 82.2

Client Sample ID: WCSS-25-(0-0.25)

Date Collected: 09/16/13 13:35 Date Received: 09/18/13 01:30

2-Fluorobiphenyl

o-Terphenyl

%Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 2,5-Dibromotoluene (fid) 76 70 - 130 09/18/13 08:33 09/19/13 13:02 5 2,5-Dibromotoluene (pid) 81 70 - 130 09/18/13 08:33 09/19/13 13:02 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.211	J	0.597	0.0967	mg/Kg	<del>\</del>	09/18/13 05:21	09/19/13 05:27	1
Acenaphthylene	<0.597		0.597	0.107	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Anthracene	0.670		0.597	0.113	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Benzo[a]anthracene	4.08		0.597	0.0907	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Benzo[a]pyrene	5.20		0.597	0.0859	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Benzo[b]fluoranthene	7.26		0.597	0.0847	mg/Kg	₩	09/18/13 05:21	09/19/13 05:27	1
Benzo[g,h,i]perylene	3.77	В	0.597	0.101	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Benzo[k]fluoranthene	2.94		0.597	0.0871	mg/Kg	₩	09/18/13 05:21	09/19/13 05:27	1
2-Methylnaphthalene	0.168	J	0.597	0.117	mg/Kg	₩	09/18/13 05:21	09/19/13 05:27	1
Chrysene	6.32		0.597	0.106	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Dibenz(a,h)anthracene	2.06	В	0.597	0.0835	mg/Kg	₩	09/18/13 05:21	09/19/13 05:27	1
Fluoranthene	10.6		0.597	0.105	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Fluorene	0.375	J	0.597	0.119	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Indeno[1,2,3-cd]pyrene	3.92	В	0.597	0.0871	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Naphthalene	0.162	J	0.597	0.100	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
Phenanthrene	4.44	В	0.597	0.119	mg/Kg	\$	09/18/13 05:21	09/19/13 05:27	1
Pyrene	8.42		0.597	0.109	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
C11-C22 Aromatics (unadjusted)	235	В	5.97	2.39	mg/Kg	₩	09/18/13 05:21	09/19/13 05:27	1
C19-C36 Aliphatics	226		5.97	2.39	mg/Kg	₽	09/18/13 05:21	09/19/13 05:27	1
C9-C18 Aliphatics	6.58		5.97	2.39	mg/Kg	₩	09/18/13 05:21	09/19/13 05:27	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	174		6.08	6.08	mg/Kg	<del>\</del>		09/20/13 10:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	42		40 - 140				09/18/13 05:21	09/19/13 05:27	1
2-Bromonaphthalene	95		40 - 140				09/18/13 05:21	09/19/13 05:27	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.97		1.18	0.474	mg/Kg	<u> </u>	09/18/13 10:50	09/18/13 23:27	1
Barium	238		0.592	0.130	mg/Kg	₩	09/18/13 10:50	09/18/13 23:27	1
Cadmium	10.9		0.237	0.0355	mg/Kg	₽	09/18/13 10:50	09/18/13 23:27	1
Chromium	71.3		0.592	0.237	mg/Kg	₩	09/18/13 10:50	09/18/13 23:27	1
Silver	1.11		0.592	0.237	mg/Kg	₽	09/18/13 10:50	09/18/13 23:27	1
Lead	1230	^	0.592	0.284	mg/Kg	☼	09/18/13 10:50	09/18/13 23:27	1
Selenium	2.15		0.592	0.474	mg/Kg	₩	09/18/13 10:50	09/18/13 23:27	1
Antimony	3.02	^	0.592	0.474	mg/Kg	₽	09/18/13 10:50	09/18/13 23:27	1
Beryllium	0.593		0.237	0.0331	mg/Kg	☼	09/18/13 10:50	09/18/13 23:27	1
Thallium	<1.18		1.18	0.355	mg/Kg	₩	09/18/13 10:50	09/18/13 23:27	1
Nickel	101		1.18	0.272	mg/Kg	₩	09/18/13 10:50	09/18/13 23:27	1
Vanadium	57.6		0.592	0.130	mg/Kg	₩	09/18/13 10:50	09/18/13 23:27	1
Zinc	2240	<b>B</b>	2.96	0.181	mg/Kg	\$	09/18/13 10:50	09/18/13 23:27	1

40 - 140

40 - 140

112

46

TestAmerica Buffalo

09/19/13 05:27 09/19/13 05:27

09/19/13 05:27

09/18/13 05:21

09/18/13 05:21

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Client Sample ID: WCSS-25-(0-0.25)

Lab Sample ID: 480-45969-13 Date Collected: 09/16/13 13:35

Matrix: Solid Percent Solids: 82.2

Date Received: 09/18/13 01:30

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.10		1.17	0.0944	mg/Kg	₩	09/18/13 08:00	09/18/13 14:25	10

Lab Sample ID: 480-45969-14 Client Sample ID: WCSS-24-(0-0.25)

Date Collected: 09/16/13 12:55 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 89.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.81		1.02	0.409	mg/Kg	<b>\$</b>	09/18/13 10:50	09/18/13 23:30	1
Barium	161		0.511	0.113	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Cadmium	4.16		0.205	0.0307	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Chromium	107		0.511	0.205	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Silver	0.855		0.511	0.205	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Lead	1960	^	0.511	0.245	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Selenium	2.16		0.511	0.409	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Antimony	0.481	J ^	0.511	0.409	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Beryllium	0.416		0.205	0.0286	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Thallium	0.505	J	1.02	0.307	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Nickel	134		1.02	0.235	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Vanadium	96.6		0.511	0.113	mg/Kg	₽	09/18/13 10:50	09/18/13 23:30	1
Zinc	1350	В	2.56	0.157	mg/Kg		09/18/13 10:50	09/18/13 23:30	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.85		2.27	0.184	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 14:27	20

Client Sample ID: WCSS-26-(0-0.25) Lab Sample ID: 480-45969-15 Date Collected: 09/16/13 14:55 **Matrix: Solid** 

Date Received: 09/18/13 01:30 Percent Solids: 94.3

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.139	0.139	0.0278	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,1,1-Trichloroethane	<0.139	0.139	0.0201	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,1,2,2-Tetrachloroethane	<0.139	0.139	0.0450	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	2
1,1,2-Trichloroethane	<0.139	0.139	0.0361	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,1-Dichloroethane	<0.139	0.139	0.0339	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	2
1,1-Dichloroethene	<0.139	0.139	0.0340	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,1-Dichloropropene	<0.139	0.139	0.0394	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	2
1,2,3-Trichlorobenzene	<0.139	0.139	0.0295	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	2
1,2,3-Trichloropropane	<0.139	0.139	0.0283	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,2,4-Trichlorobenzene	<0.139	0.139	0.0169	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,2,4-Trimethylbenzene	<0.139	0.139	0.0533	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,2-Dibromo-3-Chloropropane	<1.39	1.39	0.139	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,2-Dichlorobenzene	<0.139	0.139	0.0217	mg/Kg	<b>\$</b>	09/18/13 14:57	09/20/13 02:11	2
1,2-Dichloroethane	<0.139	0.139	0.0139	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,2-Dichloropropane	<0.139	0.139	0.139	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,3,5-Trimethylbenzene	<0.139	0.139	0.0179	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,3-Dichlorobenzene	<0.139	0.139	0.0143	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
1,3-Dichloropropane	<0.139	0.139	0.0167	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 14:55

Date Received: 09/18/13 01:30

o-Xylene

Styrene

Toluene

sec-Butylbenzene

Tert-amyl methyl ether

Tert-butyl ethyl ether

Tetrachloroethene

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

tert-Butylbenzene

Tetrahydrofuran

Client Sample ID: WCSS-26-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-15

Matrix: Solid Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,4-Dichlorobenzene	<0.139		0.139	0.0389	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	
1,4-Dioxane	<13.9		13.9	1.34	mg/Kg	\$	09/18/13 14:57	09/20/13 02:11	2
2,2-Dichloropropane	<0.139		0.139	0.0472	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
2-Butanone (MEK)	<1.39	*	1.39	0.102	mg/Kg	\$	09/18/13 14:57	09/20/13 02:11	2
2-Chlorotoluene	<0.139		0.139	0.0182	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
2-Hexanone	<1.39		1.39	0.139	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
4-Chlorotoluene	<0.139		0.139	0.0327	mg/Kg	\$	09/18/13 14:57	09/20/13 02:11	:
4-Isopropyltoluene	<0.139		0.139	0.0223	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
4-Methyl-2-pentanone (MIBK)	<1.39		1.39	0.0910	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Acetone	<13.9		13.9	0.234	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Benzene	<0.139		0.139	0.0136	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Bromobenzene	<0.139		0.139	0.0488	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Bromoform	<0.139		0.139	0.139	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Bromomethane	<0.278		0.278	0.0250	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Carbon disulfide	<0.139		0.139	0.139	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Carbon tetrachloride	<0.139		0.139	0.0269	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	
Chlorobenzene	<0.139		0.139	0.0366	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Chlorobromomethane	<0.139		0.139	0.0200	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Chlorodibromomethane	<0.139		0.139	0.0355	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Chloroethane	<0.278		0.278	0.0627	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Chloroform	<0.139		0.139	0.0172	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Chloromethane	<0.278		0.278	0.0168	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	
cis-1,2-Dichloroethene	0.548		0.139	0.0355	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	
cis-1,3-Dichloropropene	<0.139		0.139	0.0400	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Dichlorobromomethane	<0.139		0.139	0.0372	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	
Dichlorodifluoromethane	<0.278		0.278	0.0229	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	
Ethyl ether	<0.139		0.139	0.117	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	
Ethylbenzene	<0.139		0.139	0.0191	mg/Kg	₩.	09/18/13 14:57	09/20/13 02:11	:
Ethylene Dibromide	<0.139		0.139	0.0356	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	:
Hexachlorobutadiene	<0.139		0.139	0.0325	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	:
Isopropyl ether	<0.139		0.139	0.139	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	:
Isopropylbenzene	<0.139		0.139	0.0418	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	:
Methyl tert-butyl ether	<0.139		0.139	0.0273	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	:
Methylene Chloride	<0.139		0.139	0.128	mg/Kg	₩.	09/18/13 14:57	09/20/13 02:11	
m-Xylene & p-Xylene	<0.278		0.278	0.0466	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	
Naphthalene	<1.39		1.39	0.0372	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	
n-Butylbenzene	<0.139		0.139	0.0241	mg/Kg		09/18/13 14:57	09/20/13 02:11	
N-Propylbenzene	<0.139		0.139	0.0222	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	:

TestAmerica Buffalo

09/20/13 02:11

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09/20/13 02:11

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0.0362 mg/Kg

0.0241 mg/Kg

0.0139 mg/Kg

0.0710 mg/Kg

0.122 mg/Kg

0.0289 mg/Kg

0.0372 mg/Kg

0.255 mg/Kg

0.0210 mg/Kg

0.0286 mg/Kg

0.122 mg/Kg

09/18/13 14:57

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3.94

<2.78

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2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 14:55

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-26-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-15

Matrix: Solid

Percent Solids: 94.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.402		0.139	0.0611	mg/Kg	₩	09/18/13 14:57	09/20/13 02:11	2
Trichlorofluoromethane	<0.278		0.278	0.0263	mg/Kg	₽	09/18/13 14:57	09/20/13 02:11	2
Vinyl chloride	<0.139		0.139	0.0339	mg/Kg		09/18/13 14:57	09/20/13 02:11	2
Dibromomethane	<0.139		0.139	0.0286	mg/Kg	\$	09/18/13 14:57	09/20/13 02:11	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130				09/18/13 14:57	09/20/13 02:11	2
1,2-Dichloroethane-d4 (Surr)	110		70 - 130				09/18/13 14:57	09/20/13 02:11	2
4-Bromofluorobenzene (Surr)	98		70 - 130				09/18/13 14:57	09/20/13 02:11	2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.697	J	1.32	0.0530	mg/Kg	\$		09/23/13 14:26	5
C9-C12 Aliphatics (adjusted)	<1.32		1.32	0.0530	mg/Kg	☼		09/23/13 14:26	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.697	J	0.762	0.0305	mg/Kg	<del></del>	09/18/13 08:33	09/19/13 13:44	5
C9-C10 Aromatics	0.608	J	0.762	0.0305	mg/Kg	₩	09/18/13 08:33	09/19/13 13:44	5
C9-C12 Aliphatics (unadjusted)	0.609	J	0.762	0.0305	mg/Kg	₩	09/18/13 08:33	09/19/13 13:44	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	76		70 - 130				09/18/13 08:33	09/19/13 13:44	5
2,5-Dibromotoluene (pid)	82		70 - 130				09/18/13 08:33	09/19/13 13:44	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.521		0.521	0.0843	mg/Kg	<del>\</del>	09/18/13 05:21	09/19/13 06:01	1
Acenaphthylene	<0.521		0.521	0.0937	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Anthracene	0.101	J	0.521	0.0989	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Benzo[a]anthracene	0.424	J	0.521	0.0791	mg/Kg	₽	09/18/13 05:21	09/19/13 06:01	1
Benzo[a]pyrene	0.954		0.521	0.0750	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Benzo[b]fluoranthene	1.11		0.521	0.0739	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Benzo[g,h,i]perylene	1.13	В	0.521	0.0885	mg/Kg	₽	09/18/13 05:21	09/19/13 06:01	1
Benzo[k]fluoranthene	0.529		0.521	0.0760	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
2-Methylnaphthalene	<0.521		0.521	0.102	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Chrysene	0.627		0.521	0.0927	mg/Kg	₽	09/18/13 05:21	09/19/13 06:01	1
Dibenz(a,h)anthracene	0.752	В	0.521	0.0729	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Fluoranthene	0.727		0.521	0.0916	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Fluorene	0.175	J	0.521	0.104	mg/Kg	₽	09/18/13 05:21	09/19/13 06:01	1
Indeno[1,2,3-cd]pyrene	1.11	В	0.521	0.0760	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Naphthalene	<0.521		0.521	0.0875	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Phenanthrene	0.504	JB	0.521	0.104	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
Pyrene	0.698		0.521	0.0947	mg/Kg	₽	09/18/13 05:21	09/19/13 06:01	1
C11-C22 Aromatics (unadjusted)	37.4	В	5.21	2.08	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
C19-C36 Aliphatics	51.1		5.21	2.08	mg/Kg	₩	09/18/13 05:21	09/19/13 06:01	1
C9-C18 Aliphatics	2.83	J	5.21	2.08	mg/Kg	₽	09/18/13 05:21	09/19/13 06:01	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	28.5		5.30	5.30	mg/Kg	<u> </u>		09/20/13 10:00	1

TestAmerica Buffalo

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14

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-15

Matrix: Solid

Percent Solids: 94.3

Client Sample	ID: WCSS-26-	(0-0.25)
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Date Collected: 09/16/13 14:55 Date Received: 09/18/13 01:30

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	44	40 - 140	09/18/13 05:21	09/19/13 06:01	1
2-Bromonaphthalene	93	40 - 140	09/18/13 05:21	09/19/13 06:01	1
2-Fluorobiphenyl	110	40 - 140	09/18/13 05:21	09/19/13 06:01	1
o-Terphenyl	51	40 - 140	09/18/13 05:21	09/19/13 06:01	1

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.80		1.06	0.425		<del>\</del>	09/18/13 10:50	09/18/13 23:32	1
Barium	25.7		0.531	0.117		₽	09/18/13 10:50	09/18/13 23:32	1
Cadmium	0.282		0.212	0.0318	mg/Kg	₩	09/18/13 10:50	09/18/13 23:32	1
Chromium	15.2		0.531	0.212	mg/Kg		09/18/13 10:50	09/18/13 23:32	1
Silver	<0.531		0.531	0.212	mg/Kg	₽	09/18/13 10:50	09/18/13 23:32	1
Lead	77.8	^	0.531	0.255	mg/Kg	₩	09/18/13 10:50	09/18/13 23:32	1
Selenium	0.848		0.531	0.425	mg/Kg		09/18/13 10:50	09/18/13 23:32	1
Antimony	<0.531	٨	0.531	0.425	mg/Kg	₩	09/18/13 10:50	09/18/13 23:32	1
Beryllium	0.197	J	0.212	0.0297	mg/Kg	₽	09/18/13 10:50	09/18/13 23:32	1
Thallium	<1.06		1.06	0.318	mg/Kg		09/18/13 10:50	09/18/13 23:32	1
Nickel	16.1		1.06	0.244	mg/Kg	₩	09/18/13 10:50	09/18/13 23:32	1
Vanadium	14.6		0.531	0.117	mg/Kg	₩	09/18/13 10:50	09/18/13 23:32	1
Zinc	92.0	В	2.65	0.162	mg/Kg	₽	09/18/13 10:50	09/18/13 23:32	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.131		0.108	0.00874	mg/Kg	<u> </u>	09/18/13 08:00	09/18/13 14:29	1

Client Sample ID: WCSS-27-(0-0.25)

Lab Sample ID: 480-45969-16 Date Collected: 09/16/13 14:15 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 87.6

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.0937	0.0937	0.0187	mg/Kg	\$	09/18/13 14:57	09/20/13 02:35	1
1,1,1-Trichloroethane	<0.0937	0.0937	0.0136	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,1,2,2-Tetrachloroethane	<0.0937	0.0937	0.0304	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,1,2-Trichloroethane	<0.0937	0.0937	0.0244	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,1-Dichloroethane	<0.0937	0.0937	0.0229	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,1-Dichloroethene	<0.0937	0.0937	0.0229	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,1-Dichloropropene	<0.0937	0.0937	0.0266	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,2,3-Trichlorobenzene	<0.0937	0.0937	0.0199	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	1
1,2,3-Trichloropropane	<0.0937	0.0937	0.0191	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,2,4-Trichlorobenzene	<0.0937	0.0937	0.0114	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	1
1,2,4-Trimethylbenzene	<0.0937	0.0937	0.0360	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,2-Dibromo-3-Chloropropane	<0.937	0.937	0.0937	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	1
1,2-Dichlorobenzene	<0.0937	0.0937	0.0147	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,2-Dichloroethane	<0.0937	0.0937	0.00941	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,2-Dichloropropane	<0.0937	0.0937	0.0937	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,3,5-Trimethylbenzene	<0.0937	0.0937	0.0121	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	1
1,3-Dichlorobenzene	<0.0937	0.0937	0.00963	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1
1,3-Dichloropropane	<0.0937	0.0937	0.0112	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	1
1,4-Dichlorobenzene	1.07	0.0937	0.0262	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	1
1,4-Dioxane	<9.37	9.37	0.903	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 14:15

o-Xylene

Styrene

sec-Butylbenzene

Tert-amyl methyl ether

Tert-butyl ethyl ether

Tetrachloroethene

trans-1,2-Dichloroethene

Trichlorofluoromethane

trans-1,3-Dichloropropene

tert-Butylbenzene

Tetrahydrofuran

Trichloroethene

Toluene

Client Sample ID: WCSS-27-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-16

Matrix: Solid

Method: 8260C - Volatile Organ	ic Compounds (	(GC/MS) (Co	ntinued)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
2,2-Dichloropropane	<0.0937		0.0937	0.0319	mg/Kg	<del></del>	09/18/13 14:57	09/20/13 02:35	
2-Butanone (MEK)	<0.937	*	0.937	0.0686	mg/Kg	*	09/18/13 14:57	09/20/13 02:35	
2-Chlorotoluene	<0.0937		0.0937	0.0123	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
2-Hexanone	<0.937		0.937	0.0937	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
4-Chlorotoluene	<0.0937		0.0937	0.0221	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	
4-Isopropyltoluene	< 0.0937		0.0937	0.0150	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
4-Methyl-2-pentanone (MIBK)	<0.937		0.937	0.0615	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Acetone	<9.37		9.37	0.158	mg/Kg	*	09/18/13 14:57	09/20/13 02:35	
Benzene	< 0.0937		0.0937	0.00918	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Bromobenzene	< 0.0937		0.0937	0.0330	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Bromoform	<0.0937		0.0937	0.0937	mg/Kg	*	09/18/13 14:57	09/20/13 02:35	
Bromomethane	<0.187		0.187	0.0169	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Carbon disulfide	< 0.0937		0.0937	0.0937	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	
Carbon tetrachloride	<0.0937		0.0937	0.0181	mg/Kg	\$	09/18/13 14:57	09/20/13 02:35	
Chlorobenzene	< 0.0937		0.0937	0.0247	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Chlorobromomethane	< 0.0937		0.0937	0.0135	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	
Chlorodibromomethane	<0.0937		0.0937	0.0240	mg/Kg	\$	09/18/13 14:57	09/20/13 02:35	
Chloroethane	<0.187		0.187	0.0424	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Chloroform	< 0.0937		0.0937	0.0116	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Chloromethane	<0.187		0.187	0.0113	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
cis-1,2-Dichloroethene	< 0.0937		0.0937	0.0240	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
cis-1,3-Dichloropropene	< 0.0937		0.0937	0.0270	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Dichlorobromomethane	<0.0937		0.0937	0.0251	mg/Kg	₩.	09/18/13 14:57	09/20/13 02:35	
Dichlorodifluoromethane	<0.187		0.187	0.0155	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Ethyl ether	< 0.0937		0.0937	0.0787	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Ethylbenzene	<0.0937		0.0937	0.0129	mg/Kg	₩.	09/18/13 14:57	09/20/13 02:35	
Ethylene Dibromide	< 0.0937		0.0937	0.0241	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	
Hexachlorobutadiene	< 0.0937		0.0937	0.0220	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Isopropyl ether	<0.0937		0.0937	0.0937	mg/Kg		09/18/13 14:57	09/20/13 02:35	
Isopropylbenzene	< 0.0937		0.0937	0.0283	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Methyl tert-butyl ether	< 0.0937		0.0937	0.0184	mg/Kg	₩	09/18/13 14:57	09/20/13 02:35	
Methylene Chloride	<0.0937		0.0937	0.0862	mg/Kg	φ.	09/18/13 14:57	09/20/13 02:35	
m-Xylene & p-Xylene	<0.187		0.187	0.0315	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	
Naphthalene	0.0298	J	0.937	0.0251	mg/Kg	₽	09/18/13 14:57	09/20/13 02:35	
n-Butylbenzene	<0.0937		0.0937	0.0163	mg/Kg		09/18/13 14:57	09/20/13 02:35	
N-Propylbenzene	< 0.0937		0.0937	0.0150		₽	09/18/13 14:57	09/20/13 02:35	
- - V I	-0.0007		0.0007	0.0045	- 0	244	00/40/40 44.53	00/00/40 00:05	

TestAmerica Buffalo

09/20/13 02:35

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0.0245 mg/Kg

0.0163 mg/Kg

0.00937 mg/Kg

0.0480 mg/Kg

0.0825 mg/Kg

0.0195 mg/Kg

0.0252 mg/Kg

0.172 mg/Kg

0.0142 mg/Kg

0.0193 mg/Kg

0.0825 mg/Kg

0.0412 mg/Kg

0.0177 mg/Kg

09/18/13 14:57

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<0.187

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

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Client Sample ID: WCSS-27-(0-0.25)

Date Collected: 09/16/13 14:15 Date Received: 09/18/13 01:30 Lab Sample ID: 480-45969-16

Matrix: Solid

Percent Solids: 87.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<0.0937		0.0937	0.0229	mg/Kg	<del></del>	09/18/13 14:57	09/20/13 02:35	1
Dibromomethane	<0.0937		0.0937	0.0193	mg/Kg	\$	09/18/13 14:57	09/20/13 02:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130				09/18/13 14:57	09/20/13 02:35	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130				09/18/13 14:57	09/20/13 02:35	1
4-Bromofluorobenzene (Surr)	98		70 - 130				09/18/13 14:57	09/20/13 02:35	1
	us Valedis Ba			<b>0</b> )					
Method: MA VPH - Massachuse Analyte		Croleum Hyd Qualifier	arocarbons (G RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.0484	J	0.285	0.0114	mg/Kg	<u></u>		09/23/13 14:26	1
C9-C12 Aliphatics (adjusted)	<0.285		0.285	0.0114	mg/Kg	₽		09/23/13 14:26	1
: Method: MAVPH - Massachuset	te - Volatila Pat	roleum Hyd	rocarbone (G	2)					
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.0520	J	0.174	0.00694	mg/Kg	<u> </u>	09/18/13 08:33	09/19/13 16:46	1
C9-C10 Aromatics	0.580		0.174	0.00694	mg/Kg	₽	09/18/13 08:33	09/19/13 16:46	1
C9-C12 Aliphatics (unadjusted)	0.270		0.174	0.00694	mg/Kg	₽	09/18/13 08:33	09/19/13 16:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	82		70 - 130				09/18/13 08:33	09/19/13 16:46	1
2,5-Dibromotoluene (pid)	85		70 <sub>-</sub> 130				09/18/13 08:33	09/19/13 16:46	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.565		0.565	0.0915	mg/Kg	<del>\</del>	09/18/13 05:21	09/19/13 06:30	1
Acenaphthylene	<0.565		0.565	0.102	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Anthracene	<0.565		0.565	0.107	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Benzo[a]anthracene	<0.565		0.565	0.0859	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Benzo[a]pyrene	0.0936	J	0.565	0.0814	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Benzo[b]fluoranthene	0.164	J	0.565	0.0802	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Benzo[g,h,i]perylene	<0.565		0.565	0.0961	mg/Kg	₩	09/18/13 05:21	09/19/13 06:30	1
Benzo[k]fluoranthene	< 0.565		0.565	0.0825	mg/Kg	₩	09/18/13 05:21	09/19/13 06:30	1
2-Methylnaphthalene	0.632		0.565	0.111	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Chrysene	0.119	J	0.565	0.101	mg/Kg	₩	09/18/13 05:21	09/19/13 06:30	1
Dibenz(a,h)anthracene	<0.565		0.565	0.0791	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Fluoranthene	0.238	J	0.565	0.0994	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Fluorene	0.255	J	0.565	0.113	mg/Kg	<b>\$</b>	09/18/13 05:21	09/19/13 06:30	1
Indeno[1,2,3-cd]pyrene	<0.565		0.565	0.0825	mg/Kg	₩	09/18/13 05:21	09/19/13 06:30	1
Naphthalene	1.03		0.565	0.0949	mg/Kg	₩	09/18/13 05:21	09/19/13 06:30	1
Phenanthrene	0.500	JB	0.565	0.113	mg/Kg		09/18/13 05:21	09/19/13 06:30	1
Pyrene	0.190	J	0.565	0.103	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
C11-C22 Aromatics (unadjusted)	12.1	В	5.65	2.26	mg/Kg	₩	09/18/13 05:21	09/19/13 06:30	1
C19-C36 Aliphatics	160		5.65	2.26	mg/Kg		09/18/13 05:21	09/19/13 06:30	1
C9-C18 Aliphatics	23.5		5.65	2.26	mg/Kg	₽	09/18/13 05:21	09/19/13 06:30	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	8.84		5.71	5.71	mg/Kg	₩		09/20/13 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	22	X	40 - 140	09/18/13 05	21 09/19/13 06:30	1
2-Bromonaphthalene	89		40 - 140	09/18/13 05	21 09/19/13 06:30	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 14:15

Client Sample ID: WCSS-27-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-16

Lab Sample ID: 480-45969-17

Matrix: Solid

Percent Solids: 87.6

Date Received: 09/18/13 01:30 Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	108		40 - 140	09/18/13 05:21	09/19/13 06:30	1
o-Terphenyl	55		40 - 140	09/18/13 05:21	09/19/13 06:30	1

_	•		70 - 7.70				00, 10, 10 00.21	00, 10, 10 00.00	•
Method: 6010 - Metals (ICP) Analyte	Pocult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier							DII Fac
Arsenic	6.33		0.998	0.399	mg/Kg	<b>*</b>	09/18/13 10:50	09/18/13 23:34	1
Barium	69.9		0.499	0.110	mg/Kg	₩	09/18/13 10:50	09/18/13 23:34	1
Cadmium	1.94		0.200	0.0299	mg/Kg	₽	09/18/13 10:50	09/18/13 23:34	1
Chromium	213		0.499	0.200	mg/Kg	\$	09/18/13 10:50	09/18/13 23:34	1
Silver	<2.49		2.49	0.998	mg/Kg	₽	09/18/13 10:50	09/19/13 15:17	5
Lead	1300		2.49	1.20	mg/Kg	₩	09/18/13 10:50	09/19/13 15:17	5
Selenium	3.04		0.499	0.399	mg/Kg	\$	09/18/13 10:50	09/18/13 23:34	1
Antimony	<0.499	^ L	0.499	0.399	mg/Kg	₩	09/18/13 10:50	09/18/13 23:34	1
Beryllium	0.130	J	0.200	0.0279	mg/Kg	₩	09/18/13 10:50	09/18/13 23:34	1
Thallium	0.418	J	0.998	0.299	mg/Kg	₽	09/18/13 10:50	09/18/13 23:34	1
Nickel	288		4.99	1.15	mg/Kg	₩	09/18/13 10:50	09/19/13 15:17	5
Vanadium	102		2.49	0.549	mg/Kg	₩	09/18/13 10:50	09/19/13 15:17	5
Zinc	544	В	2.49	0.153	mg/Kg	*	09/18/13 10:50	09/18/13 23:34	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.664		0.108	0.00878	mg/Kg	₩	09/18/13 08:00	09/18/13 14:31	1

Client Sample ID: WCSS-28-(0-0.25)

Date Collected: 09/16/13 13:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 93.7

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00239	0.00239	0.000479	mg/Kg	<u></u>	09/19/13 09:47	09/19/13 14:55	1
1,1,1-Trichloroethane	<0.00239	0.00239	0.000348	mg/Kg	₽	09/19/13 09:47	09/19/13 14:55	1
1,1,2,2-Tetrachloroethane	<0.00239	0.00239	0.000777	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
1,1,2-Trichloroethane	<0.00239	0.00239	0.000623	mg/Kg	₽	09/19/13 09:47	09/19/13 14:55	1
1,1-Dichloroethane	<0.00239	0.00239	0.000584	mg/Kg	☼	09/19/13 09:47	09/19/13 14:55	1
1,1-Dichloroethene	<0.00239	0.00239	0.000586	mg/Kg	☼	09/19/13 09:47	09/19/13 14:55	1
1,1-Dichloropropene	<0.00239	0.00239	0.000680	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
1,2,3-Trichlorobenzene	<0.00239	0.00239	0.000509	mg/Kg	☼	09/19/13 09:47	09/19/13 14:55	1
1,2,3-Trichloropropane	<0.00239	0.00239	0.000488	mg/Kg	☼	09/19/13 09:47	09/19/13 14:55	1
1,2,4-Trichlorobenzene	<0.00239	0.00239	0.000291	mg/Kg	₽	09/19/13 09:47	09/19/13 14:55	1
1,2,4-Trimethylbenzene	<0.00239	0.00239	0.000920	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
1,2-Dibromo-3-Chloropropane	<0.0239	0.0239	0.00239	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
1,2-Dichlorobenzene	<0.00239	0.00239	0.000375	mg/Kg	₽	09/19/13 09:47	09/19/13 14:55	1
1,2-Dichloroethane	<0.00239	0.00239	0.000240	mg/Kg	☼	09/19/13 09:47	09/19/13 14:55	1
1,2-Dichloropropane	<0.00239	0.00239	0.00239	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
1,3,5-Trimethylbenzene	<0.00239	0.00239	0.000308	mg/Kg	\$	09/19/13 09:47	09/19/13 14:55	1
1,3-Dichlorobenzene	<0.00239	0.00239	0.000246	mg/Kg	☼	09/19/13 09:47	09/19/13 14:55	1
1,3-Dichloropropane	<0.00239	0.00239	0.000287	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
1,4-Dichlorobenzene	<0.00239	0.00239	0.000671	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
1,4-Dioxane	<0.239 *	0.239	0.0231	mg/Kg	₩	09/19/13 09:47	09/19/13 14:55	1
2,2-Dichloropropane	<0.00239	0.00239	0.000814	mg/Kg	₽	09/19/13 09:47	09/19/13 14:55	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Client Sample ID: WCSS-28-(0-0.25)

Lab Sample ID: 480-45969-17 Date Collected: 09/16/13 13:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 93.7

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued) RL Result Qualifier MDL Unit D Dil Fac Analyte Prepared Analyzed <0.0239 0.0239 09/19/13 09:47 09/19/13 14:55 2-Butanone (MEK) 0.00175 mg/Kg φ 2-Chlorotoluene < 0.00239 0.00239 0.000314 09/19/13 09:47 09/19/13 14:55 mg/Kg ä 2-Hexanone <0.0239 0.0239 0.00239 mg/Kg 09/19/13 09:47 09/19/13 14:55 φ 4-Chlorotoluene < 0.00239 0.00239 0.000565 mg/Kg 09/19/13 09:47 09/19/13 14:55 4-Isopropyltoluene < 0.00239 0.00239 0.000384 mg/Kg 09/19/13 09:47 09/19/13 14:55 0.00157 ₽ <0.0239 0.0239 09/19/13 09:47 09/19/13 14:55 4-Methyl-2-pentanone (MIBK) mg/Kg φ Acetone <0.239 0.239 0.00403 mg/Kg 09/19/13 09:47 09/19/13 14:55 ġ <0.00239 0.00239 0.000235 09/19/13 09:47 09/19/13 14:55 Benzene ma/Ka ä Bromobenzene < 0.00239 0.00239 0.000843 mg/Kg 09/19/13 09:47 09/19/13 14:55 ġ Bromoform < 0.00239 0.00239 0.00239 mg/Kg 09/19/13 09:47 09/19/13 14:55 ġ Bromomethane < 0.00479 0.00479 0.000431 mg/Kg 09/19/13 09:47 09/19/13 14:55 0.00239 ₩ 09/19/13 09:47 Carbon disulfide < 0.00239 0.00239 mg/Kg 09/19/13 14:55 ġ Carbon tetrachloride < 0.00239 0.00239 0.000464 ma/Ka 09/19/13 09:47 09/19/13 14:55 0.000632 Chlorobenzene < 0.00239 0.00239 mg/Kg 09/19/13 09:47 09/19/13 14:55 ġ 0.00239 0.000346 09/19/13 09:47 09/19/13 14:55 Chlorobromomethane < 0.00239 ma/Ka à < 0.00239 0.00239 0.000613 09/19/13 09:47 09/19/13 14:55 Chlorodibromomethane ma/Ka 09/19/13 09:47 Chloroethane < 0.00479 0.00479 0.00108 mg/Kg 09/19/13 14:55 ġ Chloroform <0.00239 0.00239 0.000296 09/19/13 09:47 09/19/13 14:55 mg/Kg 0.000289 ψ 09/19/13 09:47 09/19/13 14:55 Chloromethane < 0.00479 0.00479 mg/Kg ₩ cis-1,2-Dichloroethene < 0.00239 0.00239 0.000613 mg/Kg 09/19/13 09:47 09/19/13 14:55 < 0.00239 0.00239 \$ cis-1,3-Dichloropropene 0.000690 ma/Ka 09/19/13 09:47 09/19/13 14:55 ψ Dichlorobromomethane < 0.00239 0.00239 0.000642 mg/Kg 09/19/13 09:47 09/19/13 14:55 ₩ Dichlorodifluoromethane < 0.00479 0.00479 0.000396 09/19/13 09:47 09/19/13 14:55 ma/Ka ġ Ethyl ether < 0.00239 0.00239 0.00201 mg/Kg 09/19/13 09:47 09/19/13 14:55 Ethylbenzene < 0.00239 0.00239 0.000330 mg/Kg 09/19/13 09:47 09/19/13 14:55 Ethylene Dibromide < 0.00239 0.00239 0.000615 09/19/13 09:47 09/19/13 14:55 mg/Kg 0.000561 09/19/13 09:47 Hexachlorobutadiene < 0.00239 0.00239 mg/Kg 09/19/13 14:55 ψ Isopropyl ether < 0.00239 0.00239 0.00239 09/19/13 09:47 09/19/13 14:55 mg/Kg ₩ Isopropylbenzene <0.00239 0.00239 0.000722 09/19/13 09:47 09/19/13 14:55 ma/Ka 0.000470 mg/Kg ₩ 09/19/13 09:47 Methyl tert-butyl ether < 0.00239 0.00239 09/19/13 14:55 Methylene Chloride < 0.00239 0.00239 0.00220 mg/Kg 09/19/13 09:47 09/19/13 14:55 ₽ m-Xylene & p-Xylene <0.00479 0.00479 0.000805 ma/Ka 09/19/13 09:47 09/19/13 14:55 ₩ Naphthalene < 0.0239 0.0239 0.000642 mg/Kg 09/19/13 09:47 09/19/13 14:55 ₽ n-Butylbenzene < 0.00239 0.00239 0.000417 09/19/13 09:47 09/19/13 14:55 ma/Ka \$ N-Propylbenzene <0.00239 0.00239 0.000383 mg/Kg 09/19/13 09:47 09/19/13 14:55 ₩ o-Xylene <0.00239 0.00239 0.000626 mg/Kg 09/19/13 09:47 09/19/13 14:55 φ sec-Butylbenzene 0.000417 09/19/13 09:47 < 0.00239 0.00239 mg/Kg 09/19/13 14:55 ġ Styrene <0.00239 0.00239 0.000239 mg/Kg 09/19/13 09:47 09/19/13 14:55 0.00123 ₩ Tert-amyl methyl ether < 0.00239 0.00239 mg/Kg 09/19/13 09:47 09/19/13 14:55 Tert-butyl ethyl ether à < 0.00239 0.00239 0.00211 mg/Kg 09/19/13 09:47 09/19/13 14:55 0.000498 09/19/13 14:55 tert-Butylbenzene < 0.00239 0.00239 mg/Kg 09/19/13 09:47 ₩ Tetrachloroethene 0.00194 0.00239 0.000643 mg/Kg 09/19/13 09:47 09/19/13 14:55 0.00441 ġ 09/19/13 09:47 Tetrahydrofuran < 0.0479 0.0479 09/19/13 14:55 ma/Ka ġ Toluene <0.00239 0.00239 0.000362 09/19/13 09:47 09/19/13 14:55 mg/Kg # 09/19/13 09:47 trans-1,2-Dichloroethene < 0.00239 0.00239 0.000494 mg/Kg 09/19/13 14:55 φ trans-1,3-Dichloropropene <0.00239 0.00239 0.00211 mg/Kg 09/19/13 09:47 09/19/13 14:55 Trichloroethene < 0.00239 0.00239 0.00105 ₩ 09/19/13 09:47 09/19/13 14:55 mg/Kg ġ Trichlorofluoromethane < 0.00479 0.00479 0.000453 mg/Kg 09/19/13 09:47 09/19/13 14:55 Vinyl chloride < 0.00239 0.00239 0.000584 mg/Kg 09/19/13 09:47 09/19/13 14:55

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 13:30 Date Received: 09/18/13 01:30

Client Sample ID: WCSS-28-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-17

Matrix: Solid Percent Solids: 93.7

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		M	atrix:	Solid

Method: 8260C - Volatile Orga	nic Compounds	(GC/MS) (C	ontinued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	<0.00239		0.00239	0.000493	mg/Kg	<u> </u>	09/19/13 09:47	09/19/13 14:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130				09/19/13 09:47	09/19/13 14:55	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				09/19/13 09:47	09/19/13 14:55	1
4-Bromofluorobenzene (Surr)	100		70 - 130				09/19/13 09:47	09/19/13 14:55	1

Method: MA VPH - Massachusetts	- Volatile Petroleum Hydr	ocarbons (G0	C)					
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<0.267	0.267	0.0107	mg/Kg	*		09/23/13 14:27	1
C9-C12 Aliphatics (adjusted)	<0.267	0.267	0.0107	mg/Kg	₽		09/23/13 14:27	1

<0.267		0.267	0.0107	mg/Kg	<del>\</del>		09/23/13 14:27	1
- Volatile Pet	roleum Hyd	rocarbons (G0	<b>&gt;</b> )					
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<1.34		1.34	0.0535	mg/Kg	\$	09/18/13 08:33	09/18/13 18:17	10
1.21	J	1.34	0.0535	mg/Kg	₽	09/18/13 08:33	09/18/13 18:17	10
0.854	J	1.34	0.0535	mg/Kg	₽	09/18/13 08:33	09/18/13 18:17	10
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
75		70 - 130				09/18/13 08:33	09/18/13 18:17	10
81		70 - 130				09/18/13 08:33	09/18/13 18:17	10
	- Volatile Pet Result <1.34 1.21 0.854  %Recovery 75	- Volatile Petroleum Hyden Result Qualifier	- Volatile Petroleum Hydrocarbons (GC Result Qualifier RL   1.34   1.34   1.21   J   1.34   1	- Volatile Petroleum Hydrocarbons (GC)    Result   Qualifier   RL   MDL	Result         Qualifier         RL         MDL         Unit           <1.34	- Volatile Petroleum Hydrocarbons (GC)    Result   Qualifier   RL   MDL   Unit   D	- Volatile Petroleum Hydrocarbons (GC)    Result   Qualifier   RL   MDL   Unit   D   Prepared	- Volatile Petroleum Hydrocarbons (GC)    Result   Qualifier   RL   MDL   Unit   D   Prepared   Analyzed

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.512		0.512	0.0829	mg/Kg	<u></u>	09/18/13 05:21	09/19/13 07:00	1
Acenaphthylene	0.157	J	0.512	0.0921	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Anthracene	0.357	J	0.512	0.0972	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Benzo[a]anthracene	1.29		0.512	0.0778	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Benzo[a]pyrene	1.66		0.512	0.0737	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Benzo[b]fluoranthene	2.10		0.512	0.0726	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Benzo[g,h,i]perylene	1.41	В	0.512	0.0870	mg/Kg	φ.	09/18/13 05:21	09/19/13 07:00	1
Benzo[k]fluoranthene	1.14		0.512	0.0747	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
2-Methylnaphthalene	<0.512		0.512	0.100	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Chrysene	1.55		0.512	0.0911	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Dibenz(a,h)anthracene	0.881	В	0.512	0.0716	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Fluoranthene	1.93		0.512	0.0900	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Fluorene	0.187	J	0.512	0.102	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Indeno[1,2,3-cd]pyrene	1.44	В	0.512	0.0747	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Naphthalene	<0.512		0.512	0.0859	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Phenanthrene	1.22	В	0.512	0.102	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
Pyrene	1.94		0.512	0.0931	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
C11-C22 Aromatics (unadjusted)	71.7	В	5.12	2.05	mg/Kg	☼	09/18/13 05:21	09/19/13 07:00	1
C19-C36 Aliphatics	14.3		5.12	2.05	mg/Kg	₽	09/18/13 05:21	09/19/13 07:00	1
C9-C18 Aliphatics	<5.12		5.12	2.05	mg/Kg	₩	09/18/13 05:21	09/19/13 07:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	54.4		5.34	5.34	mg/Kg	<u> </u>		09/20/13 10:00	1

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	15 X	40 - 140	09/18/13 05:21	09/19/13 07:00	1
2-Bromonaphthalene	89	40 - 140	09/18/13 05:21	09/19/13 07:00	1
2-Fluorobiphenyl	103	40 - 140	09/18/13 05:21	09/19/13 07:00	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-17

Matrix: Solid Percent Solids: 93.7

Client Sample ID: WCSS-28-(0-0.25) Date Collected: 09/16/13 13:30

Date Received: 09/18/13 01:30

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	18	X	40 - 140	09/18/13 05:21	09/19/13 07:00	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.45		0.976	0.390	mg/Kg	<u></u>	09/18/13 10:50	09/18/13 23:37	1
Barium	28.9		0.488	0.107	mg/Kg	₽	09/18/13 10:50	09/18/13 23:37	1
Cadmium	0.783		0.195	0.0293	mg/Kg	₽	09/18/13 10:50	09/18/13 23:37	1
Chromium	30.6		0.488	0.195	mg/Kg		09/18/13 10:50	09/18/13 23:37	1
Silver	<0.488		0.488	0.195	mg/Kg	₩	09/18/13 10:50	09/18/13 23:37	1
Lead	143	<b>A</b>	0.488	0.234	mg/Kg	₽	09/18/13 10:50	09/18/13 23:37	1
Selenium	0.499		0.488	0.390	mg/Kg	₩.	09/18/13 10:50	09/18/13 23:37	1
Antimony	<0.488	^	0.488	0.390	mg/Kg	₩	09/18/13 10:50	09/18/13 23:37	1
Beryllium	0.217		0.195	0.0273	mg/Kg	₩	09/18/13 10:50	09/18/13 23:37	1
Thallium	<0.976		0.976	0.293	mg/Kg	₩.	09/18/13 10:50	09/18/13 23:37	1
Nickel	34.8		0.976	0.224	mg/Kg	₩	09/18/13 10:50	09/18/13 23:37	1
Vanadium	25.1		0.488	0.107	mg/Kg	₩	09/18/13 10:50	09/18/13 23:37	1
Zinc	177	В	2.44	0.149	mg/Kg		09/18/13 10:50	09/18/13 23:37	1

Method: 7471A - Mercury (CVAA) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.178		0.0987	0.00799	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 14:33	1

Client Sample ID: WCSS-29-(0-0.25)

Date Collected: 09/16/13 14:15 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-18

**Matrix: Solid** Percent Solids: 92.6

Method: 6010 - Metals (ICF	P)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.47	·	1.16	0.463	mg/Kg	*	09/18/13 10:50	09/18/13 23:39	1
Barium	178		0.579	0.127	mg/Kg	₩	09/18/13 10:50	09/18/13 23:39	1
Cadmium	5.32		0.232	0.0347	mg/Kg	₽	09/18/13 10:50	09/18/13 23:39	1
Chromium	105		0.579	0.232	mg/Kg	₽	09/18/13 10:50	09/18/13 23:39	1
Silver	0.891		0.579	0.232	mg/Kg	₩	09/18/13 10:50	09/18/13 23:39	1
Lead	1280	^	0.579	0.278	mg/Kg	₽	09/18/13 10:50	09/18/13 23:39	1
Selenium	2.27		0.579	0.463	mg/Kg	₩	09/18/13 10:50	09/18/13 23:39	1
Antimony	5.48	^	0.579	0.463	mg/Kg	₩	09/18/13 10:50	09/18/13 23:39	1
Beryllium	0.316		0.232	0.0324	mg/Kg	₽	09/18/13 10:50	09/18/13 23:39	1
Thallium	<1.16		1.16	0.347	mg/Kg	₽	09/18/13 10:50	09/18/13 23:39	1
Nickel	130		1.16	0.266	mg/Kg	₩	09/18/13 10:50	09/18/13 23:39	1
Vanadium	41.2		0.579	0.127	mg/Kg	₽	09/18/13 10:50	09/18/13 23:39	1
Zinc	2080	В	2.89	0.177	mg/Kg		09/18/13 10:50	09/18/13 23:39	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.57		2.10	0.170	mg/Kg	₩	09/18/13 08:00	09/18/13 12:18	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-30-(0-0.25)

Lab Sample ID: 480-45969-19 Date Collected: 09/16/13 14:30 Matrix: Solid

Date Received: 09/18/13 01:30 Percent Solids: 92.2

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.47		1.01	0.403	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Barium	37.1		0.504	0.111	mg/Kg	₩	09/18/13 10:50	09/18/13 23:47	1
Cadmium	0.346		0.202	0.0302	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Chromium	19.1		0.504	0.202	mg/Kg	\$	09/18/13 10:50	09/18/13 23:47	1
Silver	<0.504		0.504	0.202	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Lead	78.2	^	0.504	0.242	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Selenium	0.869	В	0.504	0.403	mg/Kg	\$	09/18/13 10:50	09/18/13 23:47	1
Antimony	< 0.504	٨	0.504	0.403	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Beryllium	0.366		0.202	0.0282	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Thallium	<1.01		1.01	0.302	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Nickel	18.2		1.01	0.232	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Vanadium	20.3		0.504	0.111	mg/Kg	₽	09/18/13 10:50	09/18/13 23:47	1
Zinc	91.7	В	2.52	0.154	mg/Kg	*	09/18/13 10:50	09/18/13 23:47	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0771	J	0.112	0.00906	mg/Kg	₩	09/18/13 08:00	09/18/13 14:35	

Client Sample ID: WCSS-31-(0-0.25)

Lab Sample ID: 480-45969-20 Date Collected: 09/16/13 10:35 **Matrix: Solid** 

Date Received: 09/18/13 01:30 Percent Solids: 95.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.36		1.02	0.410	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1
Barium	26.2		0.512	0.113	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1
Cadmium	0.206		0.205	0.0307	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1
Chromium	10.9		0.512	0.205	mg/Kg	<b>\$</b>	09/18/13 10:50	09/18/13 23:54	1
Silver	<0.512		0.512	0.205	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1
Lead	52.1	^	0.512	0.246	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1
Selenium	0.667	В	0.512	0.410	mg/Kg	₩	09/18/13 10:50	09/18/13 23:54	1
Antimony	<0.512	^	0.512	0.410	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1
Beryllium	0.238		0.205	0.0287	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1
Thallium	<1.02		1.02	0.307	mg/Kg	₩	09/18/13 10:50	09/18/13 23:54	1
Nickel	11.8		1.02	0.236	mg/Kg	₩	09/18/13 10:50	09/18/13 23:54	1
Vanadium	21.4		0.512	0.113	mg/Kg	☼	09/18/13 10:50	09/18/13 23:54	1
Zinc	62.5	В	2.56	0.157	mg/Kg	₽	09/18/13 10:50	09/18/13 23:54	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0756	J	0.102	0.00823	mg/Kg	<u> </u>	09/18/13 08:00	09/18/13 14:36	1

Client Sample ID: WCSS-32-(0-0.25) Lab Sample ID: 480-45969-21

Date Collected: 09/16/13 14:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 92.4

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.24		0.968	0.387	mg/Kg	<del>*</del>	09/18/13 10:50	09/18/13 23:56	1
Barium	45.6		0.484	0.107	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 14:45

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-32-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-21

Matrix: Solid

Percent Solids: 92.4

Method: 6010 - Metals (ICP) (Continu	ed)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.981		0.194	0.0291	mg/Kg	<del>-</del>	09/18/13 10:50	09/18/13 23:56	
Chromium	49.6		0.484	0.194	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Silver	<0.484		0.484	0.194	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Lead	202	^	0.484	0.232	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Selenium	1.24	В	0.484	0.387	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Antimony	<0.484	٨	0.484	0.387	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Beryllium	0.348		0.194	0.0271	mg/Kg	₩	09/18/13 10:50	09/18/13 23:56	•
Thallium	<0.968		0.968	0.291	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Nickel	54.7		0.968	0.223	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Vanadium	37.7		0.484	0.107	mg/Kg	₩	09/18/13 10:50	09/18/13 23:56	•
Zinc	222	В	2.42	0.148	mg/Kg	₽	09/18/13 10:50	09/18/13 23:56	
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Mercury	0.177		0.109	0.00879	mg/Kg	<u> </u>	09/18/13 08:00	09/18/13 14:38	

Client Sample ID: WCSS-33-(0-0.25) Lab Sample ID: 480-45969-22

Date Collected: 09/16/13 15:20 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 85.2

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00400	0.00400	0.000799	mg/Kg	<del>-</del>	09/19/13 09:47	09/19/13 15:20	1
1,1,1-Trichloroethane	<0.00400	0.00400	0.000580	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,1,2,2-Tetrachloroethane	<0.00400	0.00400	0.00130	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,1,2-Trichloroethane	<0.00400	0.00400	0.00104	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,1-Dichloroethane	<0.00400	0.00400	0.000975	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,1-Dichloroethene	<0.00400	0.00400	0.000978	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,1-Dichloropropene	<0.00400	0.00400	0.00114	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2,3-Trichlorobenzene	<0.00400	0.00400	0.000849	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2,3-Trichloropropane	<0.00400	0.00400	0.000814	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2,4-Trichlorobenzene	<0.00400	0.00400	0.000486	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2,4-Trimethylbenzene	<0.00400	0.00400	0.00153	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2-Dibromo-3-Chloropropane	<0.0400	0.0400	0.00400	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2-Dichlorobenzene	<0.00400	0.00400	0.000625	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2-Dichloroethane	<0.00400	0.00400	0.000401	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,2-Dichloropropane	<0.00400	0.00400	0.00400	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,3,5-Trimethylbenzene	<0.00400	0.00400	0.000515	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	1
1,3-Dichlorobenzene	<0.00400	0.00400	0.000411	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,3-Dichloropropane	<0.00400	0.00400	0.000480	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
1,4-Dichlorobenzene	<0.00400	0.00400	0.00112	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	1
1,4-Dioxane	<0.400 *	0.400	0.0385	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	1
2,2-Dichloropropane	<0.00400	0.00400	0.00136	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	1
2-Butanone (MEK)	<0.0400 *	0.0400	0.00293	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	1
2-Chlorotoluene	<0.00400	0.00400	0.000524	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	1
2-Hexanone	<0.0400	0.0400	0.00400	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
4-Chlorotoluene	<0.00400	0.00400	0.000943	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	1
4-Isopropyltoluene	<0.00400	0.00400	0.000641	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
4-Methyl-2-pentanone (MIBK)	<0.0400	0.0400	0.00262	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	1
Acetone	<0.400	0.400	0.00673	mg/Kg		09/19/13 09:47	09/19/13 15:20	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-22

Matrix: Solid

Percent Solids: 85.2

Client Sample ID:	: WCSS-33-(0-0.25)
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Date Collected: 09/16/13 15:20 Date Received: 09/18/13 01:30

Method: 8260C - Volatile Orga Analyte	Result C		MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00400	0.00400	0.000392		<u></u>	09/19/13 09:47	09/19/13 15:20	
Bromobenzene	<0.00400	0.00400	0.00141	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
Bromoform	<0.00400	0.00400	0.00400			09/19/13 09:47	09/19/13 15:20	
Bromomethane	< 0.00799	0.00799			₽	09/19/13 09:47	09/19/13 15:20	
Carbon disulfide	< 0.00400	0.00400	0.00400	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
Carbon tetrachloride	<0.00400	0.00400	0.000774			09/19/13 09:47	09/19/13 15:20	
Chlorobenzene	<0.00400	0.00400	0.00106	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
Chlorobromomethane	<0.00400	0.00400	0.000577		₩	09/19/13 09:47	09/19/13 15:20	
Chlorodibromomethane	<0.00400	0.00400	0.00102	mg/Kg		09/19/13 09:47	09/19/13 15:20	
Chloroethane	<0.00799	0.00799	0.00181		₩	09/19/13 09:47	09/19/13 15:20	
Chloroform	<0.00400	0.00400	0.000494	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
Chloromethane	<0.00799	0.00799	0.000483			09/19/13 09:47	09/19/13 15:20	
cis-1,2-Dichloroethene	<0.00400	0.00400	0.00102		₩	09/19/13 09:47	09/19/13 15:20	
cis-1,3-Dichloropropene	<0.00400	0.00400	0.00102			09/19/13 09:47	09/19/13 15:20	
Dichlorobromomethane	<0.00400	0.00400	0.00113			09/19/13 09:47	09/19/13 15:20	
Dichlorodifluoromethane	<0.00799	0.00799	0.00107	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
Dichlorodifluoromethane  Ethyl ether	<0.00799	0.00799	0.000660		₩	09/19/13 09:47	09/19/13 15:20	
				mg/Kg				
Ethylbenzene	<0.00400	0.00400	0.000552	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
Ethylene Dibromide	<0.00400	0.00400	0.00103	mg/Kg		09/19/13 09:47	09/19/13 15:20	
Hexachlorobutadiene	<0.00400	0.00400	0.000937	mg/Kg	<u></u> .	09/19/13 09:47	09/19/13 15:20	
Isopropyl ether	<0.00400	0.00400	0.00400	mg/Kg	<b>*</b>	09/19/13 09:47	09/19/13 15:20	
Isopropylbenzene	<0.00400	0.00400	0.00121		*	09/19/13 09:47	09/19/13 15:20	
Methyl tert-butyl ether	<0.00400	0.00400			<u>.</u>	09/19/13 09:47	09/19/13 15:20	
Methylene Chloride	<0.00400	0.00400	0.00368	mg/Kg	<b>\$</b>	09/19/13 09:47	09/19/13 15:20	
m-Xylene & p-Xylene	<0.00799	0.00799	0.00134		₽	09/19/13 09:47	09/19/13 15:20	
Naphthalene	<0.0400	0.0400	0.00107			09/19/13 09:47	09/19/13 15:20	
n-Butylbenzene	<0.00400	0.00400	0.000695	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
N-Propylbenzene	<0.00400	0.00400	0.000640	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
o-Xylene	<0.00400	0.00400	0.00104	mg/Kg		09/19/13 09:47	09/19/13 15:20	
sec-Butylbenzene	<0.00400	0.00400	0.000695	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
Styrene	<0.00400	0.00400	0.000400	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
Tert-amyl methyl ether	<0.00400	0.00400	0.00205	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
Tert-butyl ethyl ether	<0.00400	0.00400	0.00352	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
tert-Butylbenzene	<0.00400	0.00400	0.000831	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
Tetrachloroethene	<0.00400	0.00400	0.00107	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
Tetrahydrofuran	<0.0799	0.0799	0.00735	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
Toluene	<0.00400	0.00400	0.000604	mg/Kg	₽	09/19/13 09:47	09/19/13 15:20	
trans-1,2-Dichloroethene	<0.00400	0.00400	0.000825	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
trans-1,3-Dichloropropene	<0.00400	0.00400	0.00352	mg/Kg	Φ.	09/19/13 09:47	09/19/13 15:20	
Trichloroethene	<0.00400	0.00400	0.00176		₽	09/19/13 09:47	09/19/13 15:20	
Trichlorofluoromethane	<0.00799	0.00799	0.000756	mg/Kg	₩	09/19/13 09:47	09/19/13 15:20	
Vinyl chloride	<0.00400	0.00400	0.000975			09/19/13 09:47	09/19/13 15:20	
Dibromomethane	<0.00400	0.00400	0.000823		₩	09/19/13 09:47	09/19/13 15:20	
Surrogate	%Recovery G	Qualifier Limits				Prepared	Analyzed	Dil F
Toluene-d8 (Surr)	103	70 - 130				09/19/13 09:47	09/19/13 15:20	
1,2-Dichloroethane-d4 (Surr)	98	70 - 130				09/19/13 09:47	09/19/13 15:20	
4-Bromofluorobenzene (Surr)	97	70 - 130				09/19/13 09:47	09/19/13 15:20	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 15:20

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-33-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-22

Matrix: Solid

Percent Solids: 85.2

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
C5-C8 Aliphatics (adjusted)	0.0530	J	0.293	0.0117	mg/Kg	₩		09/23/13 14:26	1	
C9-C12 Aliphatics (adjusted)	<0.293		0.293	0.0117	mg/Kg	≎		09/23/13 14:26	1	

C9-C12 Aliphatics (adjusted)	<0.293		0.293	0.0117	ilig/Kg	~		09/23/13 14.20	'
Method: MAVPH - Massachusetts	s - Volatile Pet	roleum Hyd	lrocarbons (G	C)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.0718	J	0.196	0.00783	mg/Kg	₩	09/18/13 08:33	09/21/13 12:07	1
C9-C10 Aromatics	0.429		0.196	0.00783	mg/Kg	₽	09/18/13 08:33	09/21/13 12:07	1
C9-C12 Aliphatics (unadjusted)	0.339		0.196	0.00783	mg/Kg	₩	09/18/13 08:33	09/21/13 12:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	102		70 - 130				09/18/13 08:33	09/21/13 12:07	1
2,5-Dibromotoluene (pid)	100		70 - 130				09/18/13 08:33	09/21/13 12:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.550		0.550	0.0892	mg/Kg	<u></u>	09/18/13 05:21	09/19/13 07:59	1
Acenaphthylene	<0.550		0.550	0.0991	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Anthracene	0.203	J	0.550	0.105	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Benzo[a]anthracene	1.27		0.550	0.0837	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Benzo[a]pyrene	1.63		0.550	0.0793	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Benzo[b]fluoranthene	2.08		0.550	0.0782	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Benzo[g,h,i]perylene	2.24	В	0.550	0.0936	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Benzo[k]fluoranthene	1.07		0.550	0.0804	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
2-Methylnaphthalene	0.125	J	0.550	0.108	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Chrysene	1.50		0.550	0.0980	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Dibenz(a,h)anthracene	1.27	В	0.550	0.0771	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Fluoranthene	1.46		0.550	0.0969	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Fluorene	0.322	J	0.550	0.110	mg/Kg	φ.	09/18/13 05:21	09/19/13 07:59	1
Indeno[1,2,3-cd]pyrene	1.81	В	0.550	0.0804	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Naphthalene	<0.550		0.550	0.0925	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Phenanthrene	0.892	В	0.550	0.110	mg/Kg	φ.	09/18/13 05:21	09/19/13 07:59	1
Pyrene	1.51		0.550	0.100	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
C11-C22 Aromatics (unadjusted)	92.2	В	5.50	2.20	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
C19-C36 Aliphatics	165		5.50	2.20	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
C9-C18 Aliphatics	4.60	J	5.50	2.20	mg/Kg	₽	09/18/13 05:21	09/19/13 07:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	74.8		5.87	5.87	mg/Kg	<del>\</del>		09/20/13 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	29	X	40 - 140	09/18/13 05:21	09/19/13 07:59	1
2-Bromonaphthalene	95		40 - 140	09/18/13 05:21	09/19/13 07:59	1
2-Fluorobiphenyl	111		40 - 140	09/18/13 05:21	09/19/13 07:59	1
o-Terphenyl	35	X	40 - 140	09/18/13 05:21	09/19/13 07:59	1

Method: 6010 - Metals (ICP)								
Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	19.8	1.15	0.459	mg/Kg	<del>\</del>	09/18/13 10:50	09/18/13 23:59	1
Barium	208	0.573	0.126	mg/Kg	₩	09/18/13 10:50	09/18/13 23:59	1
Cadmium	7.21	0.229	0.0344	mg/Kg	₩	09/18/13 10:50	09/18/13 23:59	1
Chromium	109	0.573	0.229	mg/Kg	₽	09/18/13 10:50	09/18/13 23:59	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Mercury

TestAmerica Job ID: 480-45969-1

Client Sample ID: WCSS-33-(0-0.25)

Lab Sample ID: 480-45969-22

Date Collected: 09/16/13 15:20

Matrix: Solid

Date Received: 09/18/13 01:30

Percent Solids: 85.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.77		0.573	0.229	mg/Kg	\$	09/18/13 10:50	09/18/13 23:59	1
Lead	1470	^	0.573	0.275	mg/Kg	₽	09/18/13 10:50	09/18/13 23:59	1
Selenium	2.89	В	0.573	0.459	mg/Kg	₽	09/18/13 10:50	09/18/13 23:59	1
Antimony	5.34	^	0.573	0.459	mg/Kg	₽	09/18/13 10:50	09/18/13 23:59	1
Beryllium	0.605		0.229	0.0321	mg/Kg	₽	09/18/13 10:50	09/18/13 23:59	1
Thallium	<1.15		1.15	0.344	mg/Kg	₩	09/18/13 10:50	09/18/13 23:59	1
Nickel	178		1.15	0.264	mg/Kg	₽	09/18/13 10:50	09/18/13 23:59	1
Vanadium	67.0		0.573	0.126	mg/Kg	₩	09/18/13 10:50	09/18/13 23:59	1
Zinc	1740	В	2.87	0.175	mg/Kg	\$	09/18/13 10:50	09/18/13 23:59	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: WCSS-34-(0-0.25)

Lab Sample ID: 480-45969-23

2.16

2.65

₩

0.175 mg/Kg

09/18/13 08:00 09/18/13 12:34

Date Collected: 09/16/13 15:45

Date Received: 09/18/13 01:30

Matrix: Solid
Percent Solids: 85.0

Method: 8260C - Volatile Organ	ic Compounds (GC/MS)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00415	0.00415	0.000830	mg/Kg	*	09/19/13 09:47	09/19/13 15:46	1
1,1,1-Trichloroethane	<0.00415	0.00415	0.000603	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,1,2,2-Tetrachloroethane	<0.00415	0.00415	0.00135	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,1,2-Trichloroethane	<0.00415	0.00415	0.00108	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,1-Dichloroethane	<0.00415	0.00415	0.00101	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,1-Dichloroethene	<0.00415	0.00415	0.00102	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,1-Dichloropropene	<0.00415	0.00415	0.00118	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,2,3-Trichlorobenzene	<0.00415	0.00415	0.000882	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,2,3-Trichloropropane	<0.00415	0.00415	0.000845	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
1,2,4-Trichlorobenzene	<0.00415	0.00415	0.000505	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
1,2,4-Trimethylbenzene	<0.00415	0.00415	0.00159	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
1,2-Dibromo-3-Chloropropane	<0.0415	0.0415	0.00415	mg/Kg	☼	09/19/13 09:47	09/19/13 15:46	1
1,2-Dichlorobenzene	<0.00415	0.00415	0.000649	mg/Kg		09/19/13 09:47	09/19/13 15:46	1
1,2-Dichloroethane	<0.00415	0.00415	0.000417	mg/Kg	☼	09/19/13 09:47	09/19/13 15:46	1
1,2-Dichloropropane	<0.00415	0.00415	0.00415	mg/Kg	☼	09/19/13 09:47	09/19/13 15:46	1
1,3,5-Trimethylbenzene	<0.00415	0.00415	0.000535	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
1,3-Dichlorobenzene	<0.00415	0.00415	0.000427	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
1,3-Dichloropropane	<0.00415	0.00415	0.000498	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
1,4-Dichlorobenzene	<0.00415	0.00415	0.00116	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
1,4-Dioxane	<0.415 *	0.415	0.0400	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
2,2-Dichloropropane	<0.00415	0.00415	0.00141	mg/Kg	☼	09/19/13 09:47	09/19/13 15:46	1
2-Butanone (MEK)	<0.0415 *	0.0415	0.00304	mg/Kg	\$	09/19/13 09:47	09/19/13 15:46	1
2-Chlorotoluene	<0.00415	0.00415	0.000545	mg/Kg	☼	09/19/13 09:47	09/19/13 15:46	1
2-Hexanone	<0.0415	0.0415	0.00415	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
4-Chlorotoluene	<0.00415	0.00415	0.000980	mg/Kg		09/19/13 09:47	09/19/13 15:46	1
4-Isopropyltoluene	<0.00415	0.00415	0.000666	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
4-Methyl-2-pentanone (MIBK)	<0.0415	0.0415	0.00272	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
Acetone	<0.415	0.415	0.00699	mg/Kg	φ.	09/19/13 09:47	09/19/13 15:46	1
Benzene	<0.00415	0.00415	0.000407	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Bromobenzene	<0.00415	0.00415	0.00146	ma/Ka	₽	09/19/13 09:47	09/19/13 15:46	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 15:45

Date Received: 09/18/13 01:30

4-Bromofluorobenzene (Surr)

C5-C8 Aliphatics (adjusted)

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Result Qualifier

0.0979 J

Client Sample ID: WCSS-34-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-23

Matrix: Solid

Percent Solids: 85.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<0.00415		0.00415	0.00415	mg/Kg	₩	09/19/13 09:47	09/19/13 15:46	1
Bromomethane	<0.00830		0.00830	0.000747	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Carbon disulfide	<0.00415		0.00415	0.00415	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Carbon tetrachloride	<0.00415		0.00415	0.000804	mg/Kg	\$	09/19/13 09:47	09/19/13 15:46	1
Chlorobenzene	<0.00415		0.00415	0.00110	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Chlorobromomethane	< 0.00415		0.00415	0.000600	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Chlorodibromomethane	<0.00415		0.00415	0.00106	mg/Kg	\$	09/19/13 09:47	09/19/13 15:46	1
Chloroethane	<0.00830		0.00830	0.00188	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Chloroform	< 0.00415		0.00415	0.000513	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Chloromethane	<0.00830		0.00830	0.000502	mg/Kg	\$	09/19/13 09:47	09/19/13 15:46	1
cis-1,2-Dichloroethene	< 0.00415		0.00415	0.00106	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
cis-1,3-Dichloropropene	< 0.00415		0.00415	0.00120	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Dichlorobromomethane	<0.00415		0.00415	0.00111	mg/Kg		09/19/13 09:47	09/19/13 15:46	1
Dichlorodifluoromethane	<0.00830		0.00830	0.000686	mg/Kg	☼	09/19/13 09:47	09/19/13 15:46	1
Ethyl ether	< 0.00415		0.00415	0.00349	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Ethylbenzene	<0.00415		0.00415	0.000573	mg/Kg		09/19/13 09:47	09/19/13 15:46	1
Ethylene Dibromide	< 0.00415		0.00415	0.00107	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Hexachlorobutadiene	<0.00415		0.00415	0.000973	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Isopropyl ether	<0.00415		0.00415	0.00415	mg/Kg		09/19/13 09:47	09/19/13 15:46	1
Isopropylbenzene	<0.00415		0.00415	0.00125	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Methyl tert-butyl ether	<0.00415		0.00415	0.000816	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Methylene Chloride	<0.00415		0.00415	0.00382			09/19/13 09:47	09/19/13 15:46	1
m-Xylene & p-Xylene	<0.00830		0.00830	0.00140		₽	09/19/13 09:47	09/19/13 15:46	1
Naphthalene	<0.0415		0.0415	0.00111	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
n-Butylbenzene	<0.00415		0.00415	0.000723	mg/Kg	· · · · · · · · · · · · · · ·	09/19/13 09:47	09/19/13 15:46	1
N-Propylbenzene	<0.00415		0.00415	0.000664	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
o-Xylene	<0.00415		0.00415	0.00108	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
sec-Butylbenzene	<0.00415		0.00415	0.000723	mg/Kg	φ.	09/19/13 09:47	09/19/13 15:46	1
Styrene	<0.00415		0.00415	0.000415		₽	09/19/13 09:47	09/19/13 15:46	1
Tert-amyl methyl ether	<0.00415		0.00415	0.00213	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Tert-butyl ethyl ether	<0.00415		0.00415	0.00365	mg/Kg	φ.	09/19/13 09:47	09/19/13 15:46	1
tert-Butylbenzene	<0.00415		0.00415	0.000864	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Tetrachloroethene	<0.00415		0.00415	0.00111	mg/Kg	₽	09/19/13 09:47	09/19/13 15:46	1
Tetrahydrofuran	<0.0830		0.0830	0.00764			09/19/13 09:47	09/19/13 15:46	1
Toluene	<0.00415		0.00415	0.000628		₽	09/19/13 09:47	09/19/13 15:46	1
trans-1,2-Dichloroethene	<0.00415		0.00415	0.000857		₽	09/19/13 09:47	09/19/13 15:46	1
trans-1,3-Dichloropropene	<0.00415		0.00415	0.00365			09/19/13 09:47	09/19/13 15:46	1
Trichloroethene	<0.00415		0.00415	0.00183		₽	09/19/13 09:47	09/19/13 15:46	1
Trichlorofluoromethane	<0.00830		0.00830	0.000786		₽	09/19/13 09:47	09/19/13 15:46	1
Vinyl chloride	<0.00415		0.00415	0.00101		 Ф	09/19/13 09:47	09/19/13 15:46	1
Dibromomethane	<0.00415		0.00415	0.000855		₽	09/19/13 09:47	09/19/13 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130				09/19/13 09:47	09/19/13 15:46	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130				09/19/13 09:47	09/19/13 15:46	1
			70 400				00/40/40 00 47	00/40/40 45 40	

TestAmerica Buffalo

Dil Fac

09/19/13 15:46

Analyzed

09/23/13 14:26

09/19/13 09:47

Prepared

₩

1.47

MDL Unit

0.0588 mg/Kg

70 - 130

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 15:45 Date Received: 09/18/13 01:30

Client Sample ID: WCSS-34-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-23

Matrix: Solid
Percent Solids: 85.0

Method: MA VPH - Massachusetts	- volatile Per	roleum Hyd	rocarbons (C	C) (Contir) (ع	nuea)				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C12 Aliphatics (adjusted)	<1.47		1.47	0.0588	mg/Kg	₩ -		09/23/13 14:26	5
— Method: MAVPH - Massachusetts	- Volatile Pet	roleum Hyd	rocarbons (G	iC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Michiga, MAYI II - Massachasetts	- Volutile i et	roicuiii riya		<b>-</b> ,					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.141	J	1.01	0.0405	mg/Kg	<del>*</del>	09/18/13 08:33	09/19/13 14:22	5
C9-C10 Aromatics	0.609	J	1.01	0.0405	mg/Kg	₽	09/18/13 08:33	09/19/13 14:22	5
C9-C12 Aliphatics (unadjusted)	0.480	J	1.01	0.0405	mg/Kg	₩	09/18/13 08:33	09/19/13 14:22	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
O. F. Dibana and delice and (fiel)	70		70 400				00/40/40 00:00	00/40/40 44:00	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	78		70 - 130	09/18/13 08:33	09/19/13 14:22	5
2,5-Dibromotoluene (pid)	82		70 - 130	09/18/13 08:33	09/19/13 14:22	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.574		0.574	0.0930	mg/Kg	<del>-</del>	09/18/13 05:21	09/19/13 08:29	1
Acenaphthylene	<0.574		0.574	0.103	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Anthracene	0.241	J	0.574	0.109	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Benzo[a]anthracene	1.62		0.574	0.0873	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Benzo[a]pyrene	2.31		0.574	0.0827	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Benzo[b]fluoranthene	3.74		0.574	0.0815	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Benzo[g,h,i]perylene	2.04	В	0.574	0.0976	mg/Kg	\$	09/18/13 05:21	09/19/13 08:29	1
Benzo[k]fluoranthene	1.44		0.574	0.0838	mg/Kg	₩	09/18/13 05:21	09/19/13 08:29	1
2-Methylnaphthalene	0.157	J	0.574	0.113	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Chrysene	2.10		0.574	0.102	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Dibenz(a,h)anthracene	1.31	В	0.574	0.0804	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Fluoranthene	1.93		0.574	0.101	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Fluorene	0.165	J	0.574	0.115	mg/Kg	\$	09/18/13 05:21	09/19/13 08:29	1
Indeno[1,2,3-cd]pyrene	2.17	В	0.574	0.0838	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Naphthalene	0.105	J	0.574	0.0965	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Phenanthrene	0.926	В	0.574	0.115	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
Pyrene	1.90		0.574	0.105	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
C11-C22 Aromatics (unadjusted)	109	В	5.74	2.30	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
C19-C36 Aliphatics	288		5.74	2.30	mg/Kg	₽	09/18/13 05:21	09/19/13 08:29	1
C9-C18 Aliphatics	3.63	J	5.74	2.30	mg/Kg	₩	09/18/13 05:21	09/19/13 08:29	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	87.3		5.88	5.88	mg/Kg	<del></del>		09/20/13 10:00	1

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	38 X	40 - 140	09/18/13 05:21	09/19/13 08:29	1
2-Bromonaphthalene	96	40 - 140	09/18/13 05:21	09/19/13 08:29	1
2-Fluorobiphenyl	110	40 - 140	09/18/13 05:21	09/19/13 08:29	1
o-Terphenyl	42	40 - 140	09/18/13 05:21	09/19/13 08:29	1

Method: 6010 - Metals (ICP)									
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.4		1.13	0.452	mg/Kg	<del>\</del>	09/18/13 10:50	09/19/13 00:01	1
Barium	114		0.565	0.124	mg/Kg	₩	09/18/13 10:50	09/19/13 00:01	1
Cadmium	4.36		0.226	0.0339	mg/Kg	₩	09/18/13 10:50	09/19/13 00:01	1
Chromium	111		0.565	0.226	mg/Kg		09/18/13 10:50	09/19/13 00:01	1
Silver	1.47		0.565	0.226	mg/Kg	₩	09/18/13 10:50	09/19/13 00:01	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-23

Matrix: Solid

Percent Solids: 85.0

C	lient	Samp	le ID:	WCSS	-34-(	0-0.25)
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Date Collected: 09/16/13 15:45 Date Received: 09/18/13 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1040	^	0.565	0.271	mg/Kg	<u></u>	09/18/13 10:50	09/19/13 00:01	1
Selenium	1.67	В	0.565	0.452	mg/Kg		09/18/13 10:50	09/19/13 00:01	1
Antimony	2.83	<b>A</b>	0.565	0.452	mg/Kg	₩	09/18/13 10:50	09/19/13 00:01	1
Beryllium	0.524		0.226	0.0316	mg/Kg	₩	09/18/13 10:50	09/19/13 00:01	1
Thallium	<1.13		1.13	0.339	mg/Kg		09/18/13 10:50	09/19/13 00:01	1
Nickel	113		1.13	0.260	mg/Kg	₩	09/18/13 10:50	09/19/13 00:01	1
Vanadium	45.8		0.565	0.124	mg/Kg	₩	09/18/13 10:50	09/19/13 00:01	1
Zinc	1120	В	2.82	0.173	mg/Kg	\$	09/18/13 10:50	09/19/13 00:01	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

2.17

0.175 mg/Kg

2.09 J

Client Sample ID: WCSS-35-(0-0.25)

Date Collected: 09/16/13 15:50

Mercury

Date Received: 09/18/13 01:30

Lab Sample ID: 480	0-45969-24
I	Matrix: Solid

09/18/13 12:36

09/18/13 08:00

Percent Solids: 92.6

Method: 8260C - Volatile Organi Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.113	0.113	0.0227	mg/Kg	<u> </u>	09/18/13 14:57	09/20/13 02:59	1
1,1,1-Trichloroethane	<0.113	0.113	0.0165	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,1,2,2-Tetrachloroethane	<0.113	0.113	0.0368	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,1,2-Trichloroethane	<0.113	0.113	0.0295	mg/Kg		09/18/13 14:57	09/20/13 02:59	1
1,1-Dichloroethane	<0.113	0.113	0.0277	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
1,1-Dichloroethene	<0.113	0.113	0.0277	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
1,1-Dichloropropene	<0.113	0.113	0.0322	mg/Kg		09/18/13 14:57	09/20/13 02:59	1
1,2,3-Trichlorobenzene	<0.113	0.113	0.0241	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,2,3-Trichloropropane	<0.113	0.113	0.0231	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,2,4-Trichlorobenzene	<0.113	0.113	0.0138	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,2,4-Trimethylbenzene	<0.113	0.113	0.0435	mg/Kg	☼	09/18/13 14:57	09/20/13 02:59	1
1,2-Dibromo-3-Chloropropane	<1.13	1.13	0.113	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,2-Dichlorobenzene	<0.113	0.113	0.0177	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,2-Dichloroethane	<0.113	0.113	0.0114	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,2-Dichloropropane	<0.113	0.113	0.113	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
1,3,5-Trimethylbenzene	<0.113	0.113	0.0146	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
1,3-Dichlorobenzene	<0.113	0.113	0.0116	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
1,3-Dichloropropane	<0.113	0.113	0.0136	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
1,4-Dichlorobenzene	0.0664 J	0.113	0.0317	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
1,4-Dioxane	<11.3	11.3	1.09	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
2,2-Dichloropropane	<0.113	0.113	0.0385	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
2-Butanone (MEK)	0.197 J*	1.13	0.0830	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
2-Chlorotoluene	<0.113	0.113	0.0149	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
2-Hexanone	<1.13	1.13	0.113	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
4-Chlorotoluene	<0.113	0.113	0.0267	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
4-Isopropyltoluene	0.236	0.113	0.0182	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
4-Methyl-2-pentanone (MIBK)	<1.13	1.13	0.0743	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Acetone	0.745 J	11.3	0.191	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Benzene	0.0453 J	0.113	0.0111	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Bromobenzene	<0.113	0.113	0.0399	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Bromoform	<0.113	0.113	0.113	mg/Kg		09/18/13 14:57	09/20/13 02:59	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-24

Matrix: Solid
Percent Solids: 92.6

Client Sample ID: WCSS-35-(0-0.25)

Date Collected: 09/16/13 15:50 Date Received: 09/18/13 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<0.227		0.227	0.0204	mg/Kg	<del>*</del>	09/18/13 14:57	09/20/13 02:59	1
Carbon disulfide	<0.113		0.113	0.113	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Carbon tetrachloride	<0.113		0.113	0.0219	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Chlorobenzene	<0.113		0.113	0.0299	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Chlorobromomethane	<0.113		0.113	0.0164	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Chlorodibromomethane	<0.113		0.113	0.0290	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Chloroethane	<0.227		0.227	0.0512	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Chloroform	<0.113		0.113	0.0140	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Chloromethane	<0.227		0.227	0.0137	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
cis-1,2-Dichloroethene	<0.113		0.113	0.0290	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
cis-1,3-Dichloropropene	<0.113		0.113	0.0326	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Dichlorobromomethane	<0.113		0.113	0.0304	mg/Kg	*	09/18/13 14:57	09/20/13 02:59	1
Dichlorodifluoromethane	<0.227		0.227	0.0187	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Ethyl ether	<0.113		0.113	0.0952	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Ethylbenzene	0.0986	J	0.113	0.0156	mg/Kg		09/18/13 14:57	09/20/13 02:59	1
Ethylene Dibromide	<0.113		0.113	0.0291	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Hexachlorobutadiene	<0.113		0.113	0.0266	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Isopropyl ether	<0.113		0.113	0.113	mg/Kg	\$	09/18/13 14:57	09/20/13 02:59	1
Isopropylbenzene	0.0596	J	0.113	0.0342	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Methyl tert-butyl ether	<0.113		0.113	0.0223	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Methylene Chloride	<0.113		0.113	0.104	mg/Kg		09/18/13 14:57	09/20/13 02:59	1
m-Xylene & p-Xylene	0.0989	J	0.227	0.0381	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Naphthalene	<1.13		1.13	0.0304	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
n-Butylbenzene	<0.113		0.113	0.0197			09/18/13 14:57	09/20/13 02:59	1
N-Propylbenzene	0.0342	J	0.113	0.0181	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
o-Xylene	<0.113		0.113	0.0296	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
sec-Butylbenzene	<0.113		0.113	0.0197	mg/Kg		09/18/13 14:57	09/20/13 02:59	1
Styrene	1.87		0.113	0.0113	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Tert-amyl methyl ether	<0.113		0.113	0.0580	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Tert-butyl ethyl ether	<0.113		0.113	0.0997	mg/Kg	\$	09/18/13 14:57	09/20/13 02:59	1
tert-Butylbenzene	<0.113		0.113	0.0236	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Tetrachloroethene	0.0594	J	0.113	0.0304	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
Tetrahydrofuran	<2.27		2.27	0.209	mg/Kg		09/18/13 14:57	09/20/13 02:59	1
Toluene	0.0785	J	0.113	0.0171	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
trans-1,2-Dichloroethene	<0.113		0.113	0.0234	mg/Kg	₽	09/18/13 14:57	09/20/13 02:59	1
trans-1,3-Dichloropropene	<0.113		0.113	0.0997	mg/Kg		09/18/13 14:57	09/20/13 02:59	1
Trichloroethene	<0.113		0.113	0.0499	mg/Kg	₩	09/18/13 14:57	09/20/13 02:59	1
Trichlorofluoromethane	0.0900	J	0.227	0.0214		₩	09/18/13 14:57	09/20/13 02:59	1
Vinyl chloride	<0.113		0.113	0.0277		· · · · · · · · · · · · · · · · · · ·	09/18/13 14:57	09/20/13 02:59	1
Dibromomethane	<0.113		0.113	0.0233		₽	09/18/13 14:57	09/20/13 02:59	1
Surrogate	%Recovery		Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130	09/18/13 14:57	09/20/13 02:59	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 130	09/18/13 14:57	09/20/13 02:59	1
4-Bromofluorobenzene (Surr)	104		70 - 130	09/18/13 14:57	09/20/13 02:59	1

Method: MA VPH - Massachusetts	- Volatile Pet	troleum Hy	drocarbons (G	C)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.0636	J	0.270	0.0108	mg/Kg	<del>\tilde{\pi}</del>		09/23/13 14:26	1
C9-C12 Aliphatics (adjusted)	<0.270		0.270	0.0108	mg/Kg	₩		09/23/13 14:26	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 15:50

Client Sample ID: WCSS-35-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-24

Matrix: Solid Percent Solids: 92.6

Date Received: 09/18/13 01:30	
Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.177	J	0.247	0.00988	mg/Kg	<del>*</del>	09/18/13 08:33	09/21/13 12:46	1
C9-C10 Aromatics	0.334		0.247	0.00988	mg/Kg	₽	09/18/13 08:33	09/21/13 12:46	1
C9-C12 Aliphatics (unadjusted)	0.722		0.247	0.00988	mg/Kg	₽	09/18/13 08:33	09/21/13 12:46	1

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	102	70 - 1	09/18/13 08:33	09/21/13 12:46	1
2,5-Dibromotoluene (pid)	99	70 - 1	0 09/18/13 08:33	09/21/13 12:46	1

#### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.519		0.519	0.0841	mg/Kg	<del>\</del>	09/18/13 05:21	09/19/13 08:58	1
Acenaphthylene	<0.519		0.519	0.0935	mg/Kg	₩	09/18/13 05:21	09/19/13 08:58	1
Anthracene	0.686		0.519	0.0987	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Benzo[a]anthracene	2.88		0.519	0.0789	mg/Kg	<b>*</b>	09/18/13 05:21	09/19/13 08:58	1
Benzo[a]pyrene	2.55		0.519	0.0748	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Benzo[b]fluoranthene	4.02		0.519	0.0738	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Benzo[g,h,i]perylene	1.64	В	0.519	0.0883	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Benzo[k]fluoranthene	1.93		0.519	0.0758	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
2-Methylnaphthalene	0.126	J	0.519	0.102	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Chrysene	4.23		0.519	0.0925	mg/Kg	\$	09/18/13 05:21	09/19/13 08:58	1
Dibenz(a,h)anthracene	1.01	В	0.519	0.0727	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Fluoranthene	2.69		0.519	0.0914	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Fluorene	0.135	J	0.519	0.104	mg/Kg	\$	09/18/13 05:21	09/19/13 08:58	1
Indeno[1,2,3-cd]pyrene	1.75	В	0.519	0.0758	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Naphthalene	<0.519		0.519	0.0873	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
Phenanthrene	0.979	В	0.519	0.104	mg/Kg	<b>\$</b>	09/18/13 05:21	09/19/13 08:58	1
Pyrene	4.12		0.519	0.0945	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
C11-C22 Aromatics (unadjusted)	108	В	5.19	2.08	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
C19-C36 Aliphatics	64.6		5.19	2.08	mg/Kg	₽	09/18/13 05:21	09/19/13 08:58	1
C9-C18 Aliphatics	2.55	J	5.19	2.08	mg/Kg	₩	09/18/13 05:21	09/19/13 08:58	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	78.9		5.40	5.40	mg/Kg	₩		09/20/13 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	49		40 - 140	09/18/13 05:21	09/19/13 08:58	
2-Bromonaphthalene	96		40 - 140	09/18/13 05:21	09/19/13 08:58	1
2-Fluorobiphenyl	109		40 - 140	09/18/13 05:21	09/19/13 08:58	1
o-Terphenyl	59		40 - 140	09/18/13 05:21	09/19/13 08:58	1

#### Method: 6010 - Metals (ICP)

Method. 0010 - Metals (101)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.04		1.14	0.456	mg/Kg	\$	09/18/13 10:50	09/19/13 00:04	1
Barium	58.5		0.570	0.125	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Cadmium	1.33		0.228	0.0342	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Chromium	25.7		0.570	0.228	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Silver	0.469	J	0.570	0.228	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Lead	247	^	0.570	0.274	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Selenium	0.487	JB	0.570	0.456	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Antimony	2.17	^	0.570	0.456	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Beryllium	0.231		0.228	0.0319	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-24

Matrix: Solid

Percent Solids: 92.6

Client Sample ID: WCSS-35-(0-0.25)
Date Collected: 09/16/13 15:50

Date Received: 09/18/13 01:30

Method: 6010 - Metals (ICP) (Continu	ed)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<1.14		1.14	0.342	mg/Kg	₩	09/18/13 10:50	09/19/13 00:04	1
Nickel	32.2		1.14	0.262	mg/Kg	₽	09/18/13 10:50	09/19/13 00:04	1
Vanadium	15.5		0.570	0.125	mg/Kg	₩	09/18/13 10:50	09/19/13 00:04	1
Zinc	333	В	2.85	0.174	mg/Kg		09/18/13 10:50	09/19/13 00:04	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.408		0.0998	0.00808	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 14:40	1

Client Sample ID: WCSS-36-(0-0.25)

Date Collected: 09/16/13 15:05 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-25 **Matrix: Solid** 

Percent Solids: 92.4

Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13.8		1.06	0.423	mg/Kg	₽	09/18/13 10:50	09/19/13 00:06	1
Barium	246		0.529	0.116	mg/Kg	₽	09/18/13 10:50	09/19/13 00:06	1
Cadmium	16.1		0.212	0.0318	mg/Kg	₽	09/18/13 10:50	09/19/13 00:06	1
Chromium	229		0.529	0.212	mg/Kg	₽	09/18/13 10:50	09/19/13 00:06	1
Silver	2.78		2.65	1.06	mg/Kg	₽	09/18/13 10:50	09/19/13 15:19	5
Lead	1690		2.65	1.27	mg/Kg	₽	09/18/13 10:50	09/19/13 15:19	5
Selenium	4.14	В	0.529	0.423	mg/Kg	₽	09/18/13 10:50	09/19/13 00:06	1
Antimony	4.35	^	0.529	0.423	mg/Kg	₽	09/18/13 10:50	09/19/13 00:06	1
Beryllium	0.347		0.212	0.0296	mg/Kg	₩	09/18/13 10:50	09/19/13 00:06	1
Thallium	0.564	J	1.06	0.318	mg/Kg	\$	09/18/13 10:50	09/19/13 00:06	1
Nickel	328		5.29	1.22	mg/Kg	₩	09/18/13 10:50	09/19/13 15:19	5
Vanadium	179		2.65	0.582	mg/Kg	₩	09/18/13 10:50	09/19/13 15:19	5
Zinc	1570 I		2.65	0.162	mg/Kg		09/18/13 10:50	09/19/13 00:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.59	J	2.08	0.168	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 12:40	20

Client Sample ID: WCSS-38-(0-0.25)

Date Collected: 09/16/13 09:35

Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-26 **Matrix: Solid** 

Percent Solids: 98.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.52		0.892	0.357	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Barium	21.2		0.446	0.0981	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Cadmium	0.0785	J	0.178	0.0268	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Chromium	7.33		0.446	0.178	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Silver	<0.446		0.446	0.178	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Lead	33.9	^	0.446	0.214	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Selenium	0.580	В	0.446	0.357	mg/Kg	\$	09/18/13 10:50	09/19/13 00:08	1
Antimony	<0.446	^	0.446	0.357	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Beryllium	0.307		0.178	0.0250	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1
Thallium	<0.892		0.892	0.268	mg/Kg	\$	09/18/13 10:50	09/19/13 00:08	1
Nickel	17.3		0.892	0.205	mg/Kg	₽	09/18/13 10:50	09/19/13 00:08	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-26

Matrix: Solid

Matrix: Solid Percent Solids: 98.4

Client Sample ID: WCSS-38-(0-0.25)

Date Collected: 09/16/13 09:35 Date Received: 09/18/13 01:30

Method: 6010 - Metals (ICP) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	31.7		0.446	0.0981	mg/Kg	<del>*</del>	09/18/13 10:50	09/19/13 00:08	1
Zinc	70.1	В	2.23	0.137	mg/Kg	*	09/18/13 10:50	09/19/13 00:08	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0300	J	0.0939	0.00761	mg/Kg	₩	09/18/13 08:00	09/18/13 14:46	1

Client Sample ID: WCSS-39-(0-0.25)

Date Collected: 09/16/13 08:15 Date Received: 09/18/13 01:30 Lab Sample ID: 480-45969-27

Matrix: Solid
Percent Solids: 94.4

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.10		1.15	0.461	mg/Kg	<u> </u>	09/18/13 10:50	09/19/13 00:10	1
Barium	43.6		0.576	0.127	mg/Kg	₽	09/18/13 10:50	09/19/13 00:10	1
Cadmium	0.149	J	0.230	0.0346	mg/Kg	₽	09/18/13 10:50	09/19/13 00:10	1
Chromium	12.9		0.576	0.230	mg/Kg	₩	09/18/13 10:50	09/19/13 00:10	1
Silver	< 0.576		0.576	0.230	mg/Kg	₩	09/18/13 10:50	09/19/13 00:10	1
Lead	48.7	^	0.576	0.277	mg/Kg	₩	09/18/13 10:50	09/19/13 00:10	1
Selenium	0.706	В	0.576	0.461	mg/Kg	₩	09/18/13 10:50	09/19/13 00:10	1
Antimony	< 0.576	^	0.576	0.461	mg/Kg	₩	09/18/13 10:50	09/19/13 00:10	1
Beryllium	0.278		0.230	0.0323	mg/Kg	₩	09/18/13 10:50	09/19/13 00:10	1
Thallium	<1.15		1.15	0.346	mg/Kg		09/18/13 10:50	09/19/13 00:10	1
Nickel	16.0		1.15	0.265	mg/Kg	₽	09/18/13 10:50	09/19/13 00:10	1
Vanadium	35.1		0.576	0.127	mg/Kg	₩	09/18/13 10:50	09/19/13 00:10	1
Zinc	73.8	<b>B</b>	2.88	0.176	mg/Kg		09/18/13 10:50	09/19/13 00:10	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0688	J	0.0973	0.00788	mg/Kg	<del>\$</del>	09/18/13 08:00	09/18/13 14:47	1

Client Sample ID: WCSS-40-(0-0.25)

Lab Sample ID: 480-45969-28

Date Collected: 09/16/13 08:35
Date Received: 09/18/13 01:30
Matrix: Solid
Percent Solids: 96.4

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00249	0.00249	0.000499	mg/Kg	₩	09/19/13 09:47	09/19/13 16:11	1
1,1,1-Trichloroethane	<0.00249	0.00249	0.000362	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,1,2,2-Tetrachloroethane	<0.00249	0.00249	0.000809	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,1,2-Trichloroethane	<0.00249	0.00249	0.000648	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,1-Dichloroethane	<0.00249	0.00249	0.000609	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,1-Dichloroethene	<0.00249	0.00249	0.000611	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,1-Dichloropropene	<0.00249	0.00249	0.000708	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,2,3-Trichlorobenzene	<0.00249	0.00249	0.000530	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,2,3-Trichloropropane	<0.00249	0.00249	0.000508	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,2,4-Trichlorobenzene	<0.00249	0.00249	0.000303	mg/Kg	<b>\$</b>	09/19/13 09:47	09/19/13 16:11	1
1,2,4-Trimethylbenzene	<0.00249	0.00249	0.000958	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,2-Dibromo-3-Chloropropane	<0.0249	0.0249	0.00249	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
1,2-Dichlorobenzene	<0.00249	0.00249	0.000390	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1

TestAmerica Buffalo

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10/14/2013

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-28

Matrix: Solid Percent Solids: 96.4

. Matrix: Solid

Client Sample	ID:	WCSS-40-	(0-0.25)
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Date Collected: 09/16/13 08:35 Date Received: 09/18/13 01:30

Method: 8260C - Volatile Organ	ic Compounds (GC/MS) (Co	ontinued)						
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dichloroethane	<0.00249	0.00249	0.000250	mg/Kg	<del>*</del>	09/19/13 09:47	09/19/13 16:11	
1,2-Dichloropropane	<0.00249	0.00249	0.00249	mg/Kg	₩	09/19/13 09:47	09/19/13 16:11	
1,3,5-Trimethylbenzene	<0.00249	0.00249	0.000321	mg/Kg	\$	09/19/13 09:47	09/19/13 16:11	
1,3-Dichlorobenzene	<0.00249	0.00249	0.000256	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
1,3-Dichloropropane	<0.00249	0.00249	0.000299	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
1,4-Dichlorobenzene	<0.00249	0.00249	0.000698	mg/Kg	\$	09/19/13 09:47	09/19/13 16:11	
1,4-Dioxane	<0.249 *	0.249	0.0240	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
2,2-Dichloropropane	<0.00249	0.00249	0.000848	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
2-Butanone (MEK)	<0.0249 *	0.0249	0.00183	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
2-Chlorotoluene	<0.00249	0.00249	0.000327	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
2-Hexanone	<0.0249	0.0249	0.00249	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
4-Chlorotoluene	<0.00249	0.00249	0.000589	mg/Kg	\$	09/19/13 09:47	09/19/13 16:11	
4-Isopropyltoluene	<0.00249	0.00249	0.000400	mg/Kg	₩	09/19/13 09:47	09/19/13 16:11	
4-Methyl-2-pentanone (MIBK)	<0.0249	0.0249	0.00164	mg/Kg	₩	09/19/13 09:47	09/19/13 16:11	
Acetone	<0.249	0.249	0.00420	mg/Kg		09/19/13 09:47	09/19/13 16:11	
Benzene	<0.00249	0.00249	0.000244	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
Bromobenzene	<0.00249	0.00249	0.000878	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
Bromoform	<0.00249	0.00249	0.00249	mg/Kg		09/19/13 09:47	09/19/13 16:11	
Bromomethane	<0.00499	0.00499	0.000449	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
Carbon disulfide	<0.00249	0.00249	0.00249		₽	09/19/13 09:47	09/19/13 16:11	
Carbon tetrachloride	<0.00249	0.00249	0.000483			09/19/13 09:47	09/19/13 16:11	
Chlorobenzene	<0.00249	0.00249	0.000658		₽	09/19/13 09:47	09/19/13 16:11	
Chlorobromomethane	<0.00249	0.00249	0.000360		₽	09/19/13 09:47	09/19/13 16:11	
Chlorodibromomethane	<0.00249	0.00249	0.000638		 \$	09/19/13 09:47	09/19/13 16:11	
Chloroethane	<0.00499	0.00499	0.00113		₽	09/19/13 09:47	09/19/13 16:11	
Chloroform	<0.00249	0.00249	0.000308	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	
Chloromethane	<0.00499	0.00499	0.000301	mg/Kg		09/19/13 09:47	09/19/13 16:11	
sis-1,2-Dichloroethene	<0.00249	0.00249	0.000638	mg/Kg	₩	09/19/13 09:47	09/19/13 16:11	
sis-1,3-Dichloropropene	<0.00249	0.00249	0.000718	mg/Kg	₩	09/19/13 09:47	09/19/13 16:11	
Dichlorobromomethane	<0.00249	0.00249	0.000668			09/19/13 09:47	09/19/13 16:11	
Dichlorodifluoromethane	<0.00499	0.00499	0.000412		₽	09/19/13 09:47	09/19/13 16:11	
Ethyl ether	<0.00499	0.00433	0.00209		₽	09/19/13 09:47	09/19/13 16:11	
Ethylbenzene	<0.00249	0.00249	0.000344			09/19/13 09:47	09/19/13 16:11	
Ethylene Dibromide	<0.00249	0.00249	0.000640	mg/Kg		09/19/13 09:47	09/19/13 16:11	
Hexachlorobutadiene	<0.00249	0.00249	0.000585			09/19/13 09:47	09/19/13 16:11	
	<0.00249	0.00249				09/19/13 09:47	09/19/13 16:11	
sopropyl ether	<0.00249	0.00249	0.00249	0 0	т Ф	09/19/13 09:47	09/19/13 16:11	
sopropylbenzene					т Ф			
Methyl tert-butyl ether	<0.00249	0.00249	0.000490			09/19/13 09:47	09/19/13 16:11	
Methylene Chloride	<0.00249	0.00249	0.00229	mg/Kg		09/19/13 09:47	09/19/13 16:11	
m-Xylene & p-Xylene	<0.00499	0.00499	0.000838		<b>‡</b>	09/19/13 09:47	09/19/13 16:11	
Naphthalene	<0.0249	0.0249	0.000668		<del>. %</del> .	09/19/13 09:47	09/19/13 16:11	
n-Butylbenzene	<0.00249	0.00249	0.000434		<b>‡</b>	09/19/13 09:47	09/19/13 16:11	
N-Propylbenzene	<0.00249	0.00249	0.000399	mg/Kg	Ţ.	09/19/13 09:47	09/19/13 16:11	
o-Xylene	<0.00249	0.00249	0.000651		<u></u> .	09/19/13 09:47	09/19/13 16:11	
sec-Butylbenzene	<0.00249	0.00249	0.000434		ψ.	09/19/13 09:47	09/19/13 16:11	
Styrene	<0.00249	0.00249	0.000249		₩.	09/19/13 09:47	09/19/13 16:11	
Tert-amyl methyl ether	<0.00249	0.00249	0.00128			09/19/13 09:47	09/19/13 16:11	
Tert-butyl ethyl ether	<0.00249	0.00249	0.00219	mg/Kg	₩	09/19/13 09:47	09/19/13 16:11	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 08:35

Date Received: 09/18/13 01:30

2,5-Dibromotoluene (fid)

2,5-Dibromotoluene (pid)

Client Sample ID: WCSS-40-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-28

Matrix: Solid Percent Solids: 96.4

09/18/13 09:34 09/21/13 13:24

09/21/13 13:24

09/18/13 09:34

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.00249		0.00249	0.000669	mg/Kg	<del>-</del>	09/19/13 09:47	09/19/13 16:11	1
Tetrahydrofuran	<0.0499		0.0499	0.00459	mg/Kg	*	09/19/13 09:47	09/19/13 16:11	1
Toluene	<0.00249		0.00249	0.000377	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
trans-1,2-Dichloroethene	<0.00249		0.00249	0.000515	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
trans-1,3-Dichloropropene	<0.00249		0.00249	0.00219	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
Trichloroethene	<0.00249		0.00249	0.00110	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
Trichlorofluoromethane	< 0.00499		0.00499	0.000472	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
Vinyl chloride	<0.00249		0.00249	0.000609	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
Dibromomethane	<0.00249		0.00249	0.000514	mg/Kg	₽	09/19/13 09:47	09/19/13 16:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130				09/19/13 09:47	09/19/13 16:11	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130				09/19/13 09:47	09/19/13 16:11	1
4-Bromofluorobenzene (Surr)	98		70 - 130				09/19/13 09:47	09/19/13 16:11	1
Method: MA VPH - Massachus	setts - Volatile Pe	troleum Hyd	drocarbons (G	SC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.0434	J	0.259	0.0104	mg/Kg	<u></u>		09/23/13 14:26	1
C9-C12 Aliphatics (adjusted)	0.0707	.1	0.259	0.0104	mg/Kg	₩		09/23/13 14:26	1

		RL	MIDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.184	0.166	0.00662	mg/Kg	<del>-</del>	09/18/13 09:34	09/21/13 13:24	1
C9-C10 Aromatics	0.338	0.166	0.00662	mg/Kg	₩	09/18/13 09:34	09/21/13 13:24	1
C9-C12 Aliphatics (unadjusted)	0.526	0.166	0.00662	mg/Kg	₽	09/18/13 09:34	09/21/13 13:24	1

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.488		0.488	0.0791	mg/Kg	<del>-</del>	09/18/13 05:21	09/19/13 09:28	1
Acenaphthylene	<0.488		0.488	0.0878	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Anthracene	0.205	J	0.488	0.0927	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Benzo[a]anthracene	1.41		0.488	0.0742	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Benzo[a]pyrene	1.74		0.488	0.0703	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Benzo[b]fluoranthene	2.11		0.488	0.0693	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Benzo[g,h,i]perylene	1.34	В	0.488	0.0830	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Benzo[k]fluoranthene	1.08		0.488	0.0712	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
2-Methylnaphthalene	<0.488		0.488	0.0956	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Chrysene	1.60		0.488	0.0869	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Dibenz(a,h)anthracene	0.793	В	0.488	0.0683	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Fluoranthene	1.55		0.488	0.0859	mg/Kg	₩	09/18/13 05:21	09/19/13 09:28	1
Fluorene	0.196	J	0.488	0.0976	mg/Kg	*	09/18/13 05:21	09/19/13 09:28	1
Indeno[1,2,3-cd]pyrene	1.34	В	0.488	0.0712	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Naphthalene	<0.488		0.488	0.0820	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
Phenanthrene	0.655	В	0.488	0.0976	mg/Kg	*	09/18/13 05:21	09/19/13 09:28	1
Pyrene	1.78		0.488	0.0888	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
C11-C22 Aromatics (unadjusted)	82.1	В	4.88	1.95	mg/Kg	₽	09/18/13 05:21	09/19/13 09:28	1
C19-C36 Aliphatics	148		4.88	1.95	mg/Kg		09/18/13 05:21	09/19/13 09:28	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 08:35

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-40-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-28

Matrix: Solid

Percent Solids: 96.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C18 Aliphatics	13.5		4.88	1.95	mg/Kg	₩	09/18/13 05:21	09/19/13 09:28	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	66.3		5.19	5.19	mg/Kg	₩		09/20/13 10:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	31	X	40 - 140				09/18/13 05:21	09/19/13 09:28	1
2-Bromonaphthalene	90		40 - 140				09/18/13 05:21	09/19/13 09:28	1
2-Fluorobiphenyl	104		40 - 140				09/18/13 05:21	09/19/13 09:28	1
o-Terphenyl	39	<b>V</b>	40 - 140				09/18/13 05:21	09/19/13 09:28	

Method: 6010 - Metals (ICP)									
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.33		1.04	0.415	mg/Kg	₩	09/18/13 10:50	09/19/13 00:12	1
Barium	83.1		0.519	0.114	mg/Kg	₽	09/18/13 10:50	09/19/13 00:12	1
Cadmium	2.30		0.208	0.0312	mg/Kg	₽	09/18/13 10:50	09/19/13 00:12	1
Chromium	38.5		0.519	0.208	mg/Kg	₽	09/18/13 10:50	09/19/13 00:12	1
Silver	1.49		0.519	0.208	mg/Kg	₽	09/18/13 10:50	09/19/13 00:12	1
Lead	616	^	0.519	0.249	mg/Kg	₩	09/18/13 10:50	09/19/13 00:12	1
Selenium	1.08	В	0.519	0.415	mg/Kg	₽	09/18/13 10:50	09/19/13 00:12	1
Antimony	<0.519	٨	0.519	0.415	mg/Kg	₽	09/18/13 10:50	09/19/13 00:12	1
Beryllium	0.344		0.208	0.0291	mg/Kg	₩	09/18/13 10:50	09/19/13 00:12	1
Thallium	<1.04		1.04	0.312	mg/Kg	₽	09/18/13 10:50	09/19/13 00:12	1
Nickel	51.8		1.04	0.239	mg/Kg	₩	09/18/13 10:50	09/19/13 00:12	1
Vanadium	25.4		0.519	0.114	mg/Kg	₩	09/18/13 10:50	09/19/13 00:12	1
Zinc	<b>562</b>	<b>B</b>	2.60	0.159	mg/Kg		09/18/13 10:50	09/19/13 00:12	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.893	٨	0.499	0.0404	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 15:17	5

Client Sample ID: WCSS-41-(0-0.25) Lab Sample ID: 480-45969-29

Date Collected: 09/16/13 09:55 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 90.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.1		1.14	0.457	mg/Kg	*	09/18/13 10:50	09/19/13 00:15	1
Barium	736		0.571	0.126	mg/Kg	₽	09/18/13 10:50	09/19/13 00:15	1
Cadmium	13.5		0.229	0.0343	mg/Kg	₽	09/18/13 10:50	09/19/13 00:15	1
Chromium	122		0.571	0.229	mg/Kg	\$	09/18/13 10:50	09/19/13 00:15	1
Silver	5.75		0.571	0.229	mg/Kg	₽	09/18/13 10:50	09/19/13 00:15	1
Lead	2520	^	0.571	0.274	mg/Kg	₽	09/18/13 10:50	09/19/13 00:15	1
Selenium	3.05	В	0.571	0.457	mg/Kg	\$	09/18/13 10:50	09/19/13 00:15	1
Antimony	14.9	^	0.571	0.457	mg/Kg	₽	09/18/13 10:50	09/19/13 00:15	1
Beryllium	0.481		0.229	0.0320	mg/Kg	₽	09/18/13 10:50	09/19/13 00:15	1
Thallium	<1.14		1.14	0.343	mg/Kg	φ.	09/18/13 10:50	09/19/13 00:15	1
Nickel	166		1.14	0.263	mg/Kg	₩	09/18/13 10:50	09/19/13 00:15	1
Vanadium	64.7		0.571	0.126	mg/Kg	₽	09/18/13 10:50	09/19/13 00:15	1
Zinc	3290	В	5.71	0.350	mg/Kg		09/18/13 10:50	09/19/13 15:21	2

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 09:55

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-41-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-29

Matrix: Solid Percent Solids: 90.3

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.79		2.12	0.172	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 12:48	20

Lab Sample ID: 480-45969-30 Client Sample ID: WCSS-43-(0-0.25)

Date Collected: 09/16/13 09:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 98.8

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.74		1.08	0.431	mg/Kg	<u></u>	09/18/13 10:50	09/19/13 00:22	1
Barium	233		0.538	0.118	mg/Kg	☼	09/18/13 10:50	09/19/13 00:22	1
Cadmium	7.88		0.215	0.0323	mg/Kg	₩	09/18/13 10:50	09/19/13 00:22	1
Chromium	38.5		0.538	0.215	mg/Kg	₽	09/18/13 10:50	09/19/13 00:22	1
Silver	0.709		0.538	0.215	mg/Kg	☼	09/18/13 10:50	09/19/13 00:22	1
Lead	1440	^	0.538	0.258	mg/Kg	₩	09/18/13 10:50	09/19/13 00:22	1
Selenium	1.54	В	0.538	0.431	mg/Kg	\$	09/18/13 10:50	09/19/13 00:22	1
Antimony	16.6	^	0.538	0.431	mg/Kg	☼	09/18/13 10:50	09/19/13 00:22	1
Beryllium	0.350		0.215	0.0301	mg/Kg	₩	09/18/13 10:50	09/19/13 00:22	1
Thallium	<1.08		1.08	0.323	mg/Kg		09/18/13 10:50	09/19/13 00:22	1
Nickel	47.1		1.08	0.248	mg/Kg	☼	09/18/13 10:50	09/19/13 00:22	1
Vanadium	22.0		0.538	0.118	mg/Kg	₩	09/18/13 10:50	09/19/13 00:22	1
Zinc	989	В	2.69	0.165	mg/Kg	\$	09/18/13 10:50	09/19/13 00:22	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Method: 74/1A - Mercury (CVAA)  Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	9.00		2.05	0.166	mg/Kg	<del>\</del>	09/18/13 08:00	09/18/13 12:50	20

Client Sample ID: WCSS-44-(0-0.25) Lab Sample ID: 480-45969-31 Date Collected: 09/16/13 15:25 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 99.4

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00329	0.00329	0.000658	mg/Kg	<u></u>	09/19/13 09:47	09/19/13 16:36	1
1,1,1-Trichloroethane	<0.00329	0.00329	0.000478	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,1,2,2-Tetrachloroethane	<0.00329	0.00329	0.00107	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,1,2-Trichloroethane	<0.00329	0.00329	0.000856	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,1-Dichloroethane	<0.00329	0.00329	0.000803	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,1-Dichloroethene	<0.00329	0.00329	0.000806	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,1-Dichloropropene	<0.00329	0.00329	0.000935	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,2,3-Trichlorobenzene	<0.00329	0.00329	0.000699	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,2,3-Trichloropropane	<0.00329	0.00329	0.000670	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,2,4-Trichlorobenzene	<0.00329	0.00329	0.000400	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,2,4-Trimethylbenzene	<0.00329	0.00329	0.00126	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,2-Dibromo-3-Chloropropane	<0.0329	0.0329	0.00329	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,2-Dichlorobenzene	<0.00329	0.00329	0.000515	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,2-Dichloroethane	<0.00329	0.00329	0.000330	mg/Kg	☼	09/19/13 09:47	09/19/13 16:36	1
1,2-Dichloropropane	<0.00329	0.00329	0.00329	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,3,5-Trimethylbenzene	<0.00329	0.00329	0.000424	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,3-Dichlorobenzene	<0.00329	0.00329	0.000338	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
1,3-Dichloropropane	<0.00329	0.00329	0.000395	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	1

TestAmerica Buffalo

10/14/2013

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 15:25

Dichlorodifluoromethane

Ethyl ether

Client Sample ID: WCSS-44-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-31

Matrix: Solid Percent Solids: 99.4

Date Received: 09/18/13 01:30							Percent Soli	ds: 99.
Method: 8260C - Volatile Organ								
Analyte	Result Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
1,4-Dichlorobenzene	<0.00329	0.00329	0.000922			09/19/13 09:47	09/19/13 16:36	
1,4-Dioxane	<0.329 *	0.329	0.0317	0 0	₽	09/19/13 09:47	09/19/13 16:36	
2,2-Dichloropropane	<0.00329	0.00329	0.00112	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	
2-Butanone (MEK)	<0.0329 *	0.0329	0.00241	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	
2-Chlorotoluene	<0.00329	0.00329	0.000432	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
2-Hexanone	<0.0329	0.0329	0.00329	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
4-Chlorotoluene	<0.00329	0.00329	0.000777	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
4-Isopropyltoluene	<0.00329	0.00329	0.000528	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	
4-Methyl-2-pentanone (MIBK)	<0.0329	0.0329	0.00216	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Acetone	<0.329	0.329	0.00554	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Benzene	<0.00329	0.00329	0.000323	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Bromobenzene	<0.00329	0.00329	0.00116	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Bromoform	<0.00329	0.00329	0.00329	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Bromomethane	<0.00658	0.00658	0.000592	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Carbon disulfide	<0.00329	0.00329	0.00329	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	
Carbon tetrachloride	<0.00329	0.00329	0.000637	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Chlorobenzene	<0.00329	0.00329	0.000869	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Chlorobromomethane	<0.00329	0.00329	0.000475	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	
Chlorodibromomethane	<0.00329	0.00329	0.000843	mg/Kg		09/19/13 09:47	09/19/13 16:36	
Chloroethane	<0.00658	0.00658	0.00149	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	
Chloroform	<0.00329	0.00329	0.000407	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	
Chloromethane	<0.00658	0.00658	0.000398	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
cis-1,2-Dichloroethene	<0.00329	0.00329	0.000843	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
cis-1,3-Dichloropropene	<0.00329	0.00329	0.000948	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	
Dichlorobromomethane	<0.00329	0.00329	0.000882	mg/Kg		09/19/13 09:47	09/19/13 16:36	

Ethylbenzene	<0.00329	0.00329	0.000454 mg/Kg	Φ	09/19/13 09:47	09/19/13 16:36
Ethylene Dibromide	<0.00329	0.00329	0.000845 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Hexachlorobutadiene	<0.00329	0.00329	0.000771 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Isopropyl ether	<0.00329	0.00329	0.00329 mg/Kg	\$	09/19/13 09:47	09/19/13 16:36
Isopropylbenzene	<0.00329	0.00329	0.000993 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Methyl tert-butyl ether	<0.00329	0.00329	0.000646 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Methylene Chloride	<0.00329	0.00329	0.00303 mg/Kg	*	09/19/13 09:47	09/19/13 16:36
m-Xylene & p-Xylene	<0.00658	0.00658	0.00111 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Naphthalene	<0.0329	0.0329	0.000882 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
n-Butylbenzene	<0.00329	0.00329	0.000573 mg/Kg	φ.	09/19/13 09:47	09/19/13 16:36
N-Propylbenzene	<0.00329	0.00329	0.000527 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
o-Xylene	<0.00329	0.00329	0.000860 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
sec-Butylbenzene	<0.00329	0.00329	0.000573 mg/Kg	¢	09/19/13 09:47	09/19/13 16:36
Styrene	<0.00329	0.00329	0.000329 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Tert-amyl methyl ether	<0.00329	0.00329	0.00169 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Tert-butyl ethyl ether	<0.00329	0.00329	0.00290 mg/Kg	¢	09/19/13 09:47	09/19/13 16:36
tert-Butylbenzene	<0.00329	0.00329	0.000685 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Tetrachloroethene	0.00511	0.00329	0.000883 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
Tetrahydrofuran	<0.0658	0.0658	0.00606 mg/Kg	<b>\$</b>	09/19/13 09:47	09/19/13 16:36
Toluene	<0.00329	0.00329	0.000498 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
trans-1,2-Dichloroethene	<0.00329	0.00329	0.000679 mg/Kg	₽	09/19/13 09:47	09/19/13 16:36
trans-1,3-Dichloropropene	<0.00329	0.00329	0.00290 mg/Kg		09/19/13 09:47	09/19/13 16:36
						TootAmorica Duffa
						TestAmerica Buffa

0.00658

0.00329

0.000544 mg/Kg

0.00276 mg/Kg

09/19/13 09:47

09/19/13 09:47

09/19/13 16:36

09/19/13 16:36

<0.00658

< 0.00329

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 15:25

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-44-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-31

Matrix: Solid

Percent Solids: 99.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<0.00329		0.00329	0.00145	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
Trichlorofluoromethane	<0.00658		0.00658	0.000623	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	1
Vinyl chloride	<0.00329		0.00329	0.000803	mg/Kg	₩	09/19/13 09:47	09/19/13 16:36	1
Dibromomethane	<0.00329		0.00329	0.000678	mg/Kg	₽	09/19/13 09:47	09/19/13 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130				09/19/13 09:47	09/19/13 16:36	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				09/19/13 09:47	09/19/13 16:36	1
4-Bromofluorobenzene (Surr)	96		70 - 130				09/19/13 09:47	09/19/13 16:36	1

Method: MA VPH - Massachusetts	- Volatile Petrole	eum Hydrocarbons (	GC)					
Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	0.185 J	1.26	0.0503	mg/Kg	<del>-</del>		09/23/13 14:26	5
C9-C12 Aliphatics (adjusted)	<1.26	1.26	0.0503	mg/Kg	₽		09/23/13 14:26	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	0.472	J	0.900	0.0360	mg/Kg	₩	09/18/13 09:34	09/19/13 15:29	5
C9-C10 Aromatics	0.588	J	0.900	0.0360	mg/Kg	₩	09/18/13 09:34	09/19/13 15:29	5
C9-C12 Aliphatics (unadjusted)	0.607	J	0.900	0.0360	mg/Kg	₽	09/18/13 09:34	09/19/13 15:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	76		70 - 130				09/18/13 09:34	09/19/13 15:29	- 5
2,5-Dibromotoluene (pid)	82		70 - 130				09/18/13 09:34	09/19/13 15:29	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0785	J	0.471	0.0763	mg/Kg	<del>\</del>	09/18/13 05:21	09/19/13 09:57	1
Acenaphthylene	<0.471		0.471	0.0848	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Anthracene	0.321	J	0.471	0.0895	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Benzo[a]anthracene	1.37		0.471	0.0716	mg/Kg	☼	09/18/13 05:21	09/19/13 09:57	1
Benzo[a]pyrene	3.41		0.471	0.0678	mg/Kg	≎	09/18/13 05:21	09/19/13 09:57	1
Benzo[b]fluoranthene	2.90		0.471	0.0669	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Benzo[g,h,i]perylene	2.02	В	0.471	0.0801	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Benzo[k]fluoranthene	1.55		0.471	0.0688	mg/Kg	≎	09/18/13 05:21	09/19/13 09:57	1
2-Methylnaphthalene	0.320	J	0.471	0.0923	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Chrysene	2.01		0.471	0.0838	mg/Kg	₽	09/18/13 05:21	09/19/13 09:57	1
Dibenz(a,h)anthracene	1.26	В	0.471	0.0659	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Fluoranthene	2.05		0.471	0.0829	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Fluorene	0.284	J	0.471	0.0942	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Indeno[1,2,3-cd]pyrene	2.09	В	0.471	0.0688	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Naphthalene	0.309	J	0.471	0.0791	mg/Kg	≎	09/18/13 05:21	09/19/13 09:57	1
Phenanthrene	0.896	В	0.471	0.0942	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
Pyrene	1.95		0.471	0.0857	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
C11-C22 Aromatics (unadjusted)	144	В	4.71	1.88	mg/Kg	≎	09/18/13 05:21	09/19/13 09:57	1
C19-C36 Aliphatics	441		4.71	1.88	mg/Kg	₩	09/18/13 05:21	09/19/13 09:57	1
C9-C18 Aliphatics	36.5		4.71	1.88	mg/Kg	₽	09/18/13 05:21	09/19/13 09:57	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	121		5.03	5.03	mg/Kg	<u></u>		09/20/13 10:00	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-31

Matrix: Solid

Percent Solids: 99.4

Client Sample	ID:	WCSS-44-(	(0-0.25)
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Date Collected: 09/16/13 15:25 Date Received: 09/18/13 01:30

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	46	40 - 140	09/18/13 05:21	09/19/13 09:57	1
2-Bromonaphthalene	95	40 - 140	09/18/13 05:21	09/19/13 09:57	1
2-Fluorobiphenyl	107	40 - 140	09/18/13 05:21	09/19/13 09:57	1
o-Terphenyl	55	40 - 140	09/18/13 05:21	09/19/13 09:57	1

Method: 6010 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.2		0.944	0.378	mg/Kg	<u></u>	09/18/13 10:50	09/19/13 00:24	1
Barium	376		0.472	0.104	mg/Kg	₩	09/18/13 10:50	09/19/13 00:24	1
Cadmium	11.2		0.189	0.0283	mg/Kg	₩	09/18/13 10:50	09/19/13 00:24	1
Chromium	257		0.472	0.189	mg/Kg	₩	09/18/13 10:50	09/19/13 00:24	1
Silver	2.50		2.36	0.944	mg/Kg	₩	09/18/13 10:50	09/19/13 15:24	5
Lead	2320		2.36	1.13	mg/Kg	₩	09/18/13 10:50	09/19/13 15:24	5
Selenium	4.70	В	0.472	0.378	mg/Kg	₽	09/18/13 10:50	09/19/13 00:24	1
Antimony	18.5	^	0.472	0.378	mg/Kg	₩	09/18/13 10:50	09/19/13 00:24	1
Beryllium	0.316		0.189	0.0264	mg/Kg	₩	09/18/13 10:50	09/19/13 00:24	1
Thallium	<0.944		0.944	0.283	mg/Kg	₽	09/18/13 10:50	09/19/13 00:24	1
Nickel	290		4.72	1.09	mg/Kg	₩	09/18/13 10:50	09/19/13 15:24	5
Vanadium	51.2		2.36	0.519	mg/Kg	₩	09/18/13 10:50	09/19/13 15:24	5
Zinc	3160	<b>B</b>	11.8	0.722	mg/Kg		09/18/13 10:50	09/19/13 15:24	5

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.33		1.89	0.153	mg/Kg	<u> </u>	09/18/13 08:00	09/18/13 12:51	20

Client Sample ID: WCSS-45-(0-0.25) Lah Sample ID: 480-45969-32

Date Date

ient Sample ID. <b>11</b> 003-45-(0-0.25)	Lab Sample 1D. 400-45909-52
te Collected: 09/16/13 09:30	Matrix: Solid
te Received: 09/18/13 01:30	Percent Solids: 87.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10.3		1.20	0.481	mg/Kg	₽	09/18/13 10:50	09/19/13 00:27	1
Barium	227		0.602	0.132	mg/Kg	₽	09/18/13 10:50	09/19/13 00:27	1
Cadmium	14.0		0.241	0.0361	mg/Kg	₽	09/18/13 10:50	09/19/13 00:27	1
Chromium	32.4		0.602	0.241	mg/Kg	₽	09/18/13 10:50	09/19/13 00:27	1
Silver	0.547	J	0.602	0.241	mg/Kg	₽	09/18/13 10:50	09/19/13 00:27	1
Lead	1030	^	0.602	0.289	mg/Kg	₩	09/18/13 10:50	09/19/13 00:27	1
Selenium	2.74	В	0.602	0.481	mg/Kg	\$	09/18/13 10:50	09/19/13 00:27	1
Antimony	6.32	^	0.602	0.481	mg/Kg	₩	09/18/13 10:50	09/19/13 00:27	1
Beryllium	0.451		0.241	0.0337	mg/Kg	☼	09/18/13 10:50	09/19/13 00:27	1
Thallium	<1.20		1.20	0.361	mg/Kg	\$	09/18/13 10:50	09/19/13 00:27	1
Nickel	60.9		1.20	0.277	mg/Kg	₩	09/18/13 10:50	09/19/13 00:27	1
Vanadium	23.8		0.602	0.132	mg/Kg	₽	09/18/13 10:50	09/19/13 00:27	1
Zinc	1420	В	3.01	0.184	mg/Kg		09/18/13 10:50	09/19/13 00:27	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.81		2.31	0.187	mg/Kg	<u> </u>	09/18/13 08:00	09/18/13 12:57	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-33

Lab Sample ID: 480-45969-34

**Matrix: Solid** 

Percent Solids: 99.1

Matrix: Solid

Percent Solids: 99.1

Client Sample	ID: WCSS-4	l6-(0-0.25)
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Date Collected: 09/16/13 09:10 Date Received: 09/18/13 01:30

Method: 6010 - Metals (ICP) Analyte	Posult	Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier				— <del>=</del>	09/18/13 10:50	09/19/13 00:29	Dii Fac
Arsenic	7.59		1.11		mg/Kg				1
Barium	134		0.555	0.122	mg/Kg	₩	09/18/13 10:50	09/19/13 00:29	1
Cadmium	11.1		0.222	0.0333	mg/Kg	₩	09/18/13 10:50	09/19/13 00:29	1
Chromium	13.9		0.555	0.222	mg/Kg	₩	09/18/13 10:50	09/19/13 00:29	1
Silver	0.273	J	0.555	0.222	mg/Kg	₽	09/18/13 10:50	09/19/13 00:29	1
Lead	412	^	0.555	0.267	mg/Kg	₩	09/18/13 10:50	09/19/13 00:29	1
Selenium	1.25	В	0.555	0.444	mg/Kg	\$	09/18/13 10:50	09/19/13 00:29	1
Antimony	0.824	^	0.555	0.444	mg/Kg	₽	09/18/13 10:50	09/19/13 00:29	1
Beryllium	0.286		0.222	0.0311	mg/Kg	₩	09/18/13 10:50	09/19/13 00:29	1
Thallium	<1.11		1.11	0.333	mg/Kg	₽	09/18/13 10:50	09/19/13 00:29	1
Nickel	32.9		1.11	0.255	mg/Kg	₩	09/18/13 10:50	09/19/13 00:29	1
Vanadium	17.8		0.555	0.122	mg/Kg	₩	09/18/13 10:50	09/19/13 00:29	1
Zinc	2440	В	5.55	0.340	mg/Kg	\$	09/18/13 10:50	09/19/13 15:26	2
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.06		1.94	0.157	mg/Kg	<del>*</del>	09/18/13 08:00	09/18/13 12:58	20

Client Sample ID: WCSS-47-(0-0.25)

Date Collected: 09/16/13 07:55

Date Received: 09/18/13 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.10		1.05	0.422	mg/Kg	<u> </u>	09/18/13 10:50	09/19/13 00:31	1
Barium	13.6		0.527	0.116	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Cadmium	0.209	J	0.211	0.0316	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Chromium	8.76		0.527	0.211	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Silver	<0.527		0.527	0.211	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Lead	61.4	^	0.527	0.253	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Selenium	0.444	JB	0.527	0.422	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Antimony	2.66	^	0.527	0.422	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Beryllium	0.146	J	0.211	0.0295	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Thallium	<1.05		1.05	0.316	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Nickel	6.08		1.05	0.243	mg/Kg	₽	09/18/13 10:50	09/19/13 00:31	1
Vanadium	11.5		0.527	0.116	mg/Kg	₩	09/18/13 10:50	09/19/13 00:31	1
Zinc	47.7	В	2.64	0.161	mg/Kg		09/18/13 10:50	09/19/13 00:31	1

Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.106		0.0963	0.00780	mg/Kg	<del></del>	09/18/13 08:00	09/18/13 14:51	1

Client Sample ID: WCSS-48-(0-0.25)

Date Collected: 09/16/13 07:30

Date Received: 09/18/13 01:30

Method: 6010 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.17		0.984	0.393	mg/Kg	<u> </u>	09/18/13 10:50	09/19/13 00:42	1
Barium	23.7		0.492	0.108	mg/Kg	₩	09/18/13 10:50	09/19/13 00:42	1

TestAmerica Buffalo

**Matrix: Solid** 

Percent Solids: 97.0

Lab Sample ID: 480-45969-35

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 09/16/13 07:30

Date Received: 09/18/13 01:30

Client Sample ID: WCSS-48-(0-0.25)

TestAmerica Job ID: 480-45969-1

Lab Sample ID: 480-45969-35

Matrix: Solid

Percent Solids: 97.0

Method: 6010 - Metals (ICP) (Continu	•								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.181	J	0.197	0.0295	mg/Kg	₩	09/18/13 10:50	09/19/13 00:42	1
Chromium	10.2		0.492	0.197	mg/Kg	≎	09/18/13 10:50	09/19/13 00:42	1
Silver	< 0.492		0.492	0.197	mg/Kg	₽	09/18/13 10:50	09/19/13 00:42	1
Lead	33.5	^	0.492	0.236	mg/Kg	₽	09/18/13 10:50	09/19/13 00:42	1
Selenium	0.787	В	0.492	0.393	mg/Kg	₩.	09/18/13 10:50	09/19/13 00:42	1
Antimony	<0.492	٨	0.492	0.393	mg/Kg	₩	09/18/13 10:50	09/19/13 00:42	1
Beryllium	0.422		0.197	0.0275	mg/Kg	₽	09/18/13 10:50	09/19/13 00:42	1
Thallium	<0.984		0.984	0.295	mg/Kg	₩.	09/18/13 10:50	09/19/13 00:42	1
Nickel	32.6		0.984	0.226	mg/Kg	₩	09/18/13 10:50	09/19/13 00:42	1
Vanadium	16.4		0.492	0.108	mg/Kg	₩	09/18/13 10:50	09/19/13 00:42	1
Zinc -	45.1	В	2.46	0.150	mg/Kg	₽	09/18/13 10:50	09/19/13 00:42	1
Method: 7471A - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0470	J	0.101	0.00819	mg/Kg	₽	09/18/13 08:00	09/18/13 15:05	1

Lab Sample ID: 480-45969-38 Client Sample ID: TB-09162013

Date Collected: 09/16/13 12:00 Matrix: Water

Date Received: 09/18/13 01:30

Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00	1.00	0.350	ug/L			09/19/13 02:13	1
1,1,1-Trichloroethane	<1.00	1.00	0.820	ug/L			09/19/13 02:13	1
1,1,2,2-Tetrachloroethane	<0.500	0.500	0.210	ug/L			09/19/13 02:13	1
1,1,2-Trichloroethane	<1.00	1.00	0.230	ug/L			09/19/13 02:13	1
1,1-Dichloroethane	<1.00	1.00	0.380	ug/L			09/19/13 02:13	1
1,1-Dichloroethene	<1.00	1.00	0.290	ug/L			09/19/13 02:13	1
1,1-Dichloropropene	<1.00	1.00	0.720	ug/L			09/19/13 02:13	1
1,2,3-Trichlorobenzene	<1.00	1.00	0.410	ug/L			09/19/13 02:13	1
1,2,3-Trichloropropane	<1.00	1.00	0.890	ug/L			09/19/13 02:13	1
1,2,4-Trichlorobenzene	<1.00	1.00	0.410	ug/L			09/19/13 02:13	1
1,2,4-Trimethylbenzene	<1.00	1.00	0.750	ug/L			09/19/13 02:13	1
1,2-Dibromo-3-Chloropropane	<5.00	5.00	0.390	ug/L			09/19/13 02:13	1
1,2-Dichlorobenzene	<1.00	1.00	0.790	ug/L			09/19/13 02:13	1
1,2-Dichloroethane	<1.00	1.00	0.210	ug/L			09/19/13 02:13	1
1,2-Dichloropropane	<1.00	1.00	0.720	ug/L			09/19/13 02:13	1
1,3,5-Trimethylbenzene	<1.00	1.00	0.770	ug/L			09/19/13 02:13	1
1,3-Dichlorobenzene	<1.00	1.00	0.780	ug/L			09/19/13 02:13	1
1,3-Dichloropropane	<1.00	1.00	0.750	ug/L			09/19/13 02:13	1
1,4-Dichlorobenzene	<1.00	1.00	0.840	ug/L			09/19/13 02:13	1
1,4-Dioxane	<50.0	50.0	9.32	ug/L			09/19/13 02:13	1
2,2-Dichloropropane	<1.00	1.00	0.400	ug/L			09/19/13 02:13	1
2-Butanone (MEK)	<10.0 *	10.0	1.32	ug/L			09/19/13 02:13	1
2-Chlorotoluene	<1.00	1.00	0.860	ug/L			09/19/13 02:13	1
2-Hexanone	<10.0	10.0	1.24	ug/L			09/19/13 02:13	1
4-Chlorotoluene	<1.00	1.00	0.840	ug/L			09/19/13 02:13	1
4-Isopropyltoluene	<1.00	1.00	0.310	ug/L			09/19/13 02:13	1
4-Methyl-2-pentanone (MIBK)	<10.0	10.0	2.10	ug/L			09/19/13 02:13	1
Acetone	12.5 J	50.0	3.00	ua/L			09/19/13 02:13	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-45969-1

0.20

Lab Sample ID: 480-45969-38

Matrix: Water

Client Sample ID: TB-09162013

Date Collected: 09/16/13 12:00 Date Received: 09/18/13 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<1.00		1.00	0.410	ug/L			09/19/13 02:13	
Bromobenzene	<1.00		1.00	0.800	ug/L			09/19/13 02:13	
Bromoform	<1.00		1.00	0.260	ug/L			09/19/13 02:13	
Bromomethane	<2.00		2.00	0.690	ug/L			09/19/13 02:13	
Carbon disulfide	<10.0		10.0	0.190	ug/L			09/19/13 02:13	
Carbon tetrachloride	<1.00		1.00	0.270	ug/L			09/19/13 02:13	
Chlorobenzene	<1.00		1.00	0.750	ug/L			09/19/13 02:13	
Chlorobromomethane	<1.00		1.00	0.870	ug/L			09/19/13 02:13	
Chlorodibromomethane	<0.500		0.500	0.320	ug/L			09/19/13 02:13	
Chloroethane	<2.00		2.00	0.320	ug/L			09/19/13 02:13	
Chloroform	<1.00		1.00	0.340	ug/L			09/19/13 02:13	
Chloromethane	<2.00		2.00	0.350				09/19/13 02:13	
cis-1,2-Dichloroethene	<1.00		1.00	0.810	ug/L			09/19/13 02:13	
cis-1,3-Dichloropropene	<0.400		0.400	0.360				09/19/13 02:13	
Dichlorobromomethane	<0.500		0.500	0.390				09/19/13 02:13	
Dichlorodifluoromethane	<1.00		1.00	0.680				09/19/13 02:13	
Ethyl ether	<1.00		1.00	0.720				09/19/13 02:13	
Ethylbenzene	<1.00		1.00	0.740				09/19/13 02:13	
Ethylene Dibromide	<1.00		1.00	0.730				09/19/13 02:13	
Hexachlorobutadiene	<0.400		0.400	0.280				09/19/13 02:13	
Isopropyl ether	<10.0		10.0	0.590				09/19/13 02:13	
Isopropylbenzene	<1.00		1.00	0.790				09/19/13 02:13	
Methyl tert-butyl ether	<1.00		1.00	0.160				09/19/13 02:13	
	0.507	<mark>.</mark>	1.00	0.440				09/19/13 02:13	
Methylene Chloride m-Xylene & p-Xylene	<2.00	3	2.00	0.660				09/19/13 02:13	
Naphthalene	<5.00		5.00	0.430	_			09/19/13 02:13	
n-Butylbenzene	<1.00		1.00	0.430				09/19/13 02:13	
-	<1.00		1.00	0.690				09/19/13 02:13	
N-Propylbenzene o-Xylene	<1.00		1.00	0.090	•			09/19/13 02:13	
sec-Butylbenzene	<1.00		1.00	0.750				09/19/13 02:13	
	<1.00		1.00		_				
Styrene Text amul methyl ether	<5.00		5.00	0.730 0.270	-			09/19/13 02:13 09/19/13 02:13	
Tert-amyl methyl ether									
Tert-butyl ethyl ether tert-Butylbenzene	<5.00 <1.00		5.00 1.00	0.294 0.810	-			09/19/13 02:13	
Tetrachloroethene	<1.00		1.00					09/19/13 02:13 09/19/13 02:13	
		<mark>.</mark>		0.360	-				
Tetrahydrofuran	3.19	J	10.0	1.25				09/19/13 02:13	
Toluene	<1.00		1.00	0.510				09/19/13 02:13	
trans-1,2-Dichloroethene	<1.00		1.00	0.900				09/19/13 02:13	
trans-1,3-Dichloropropene	<0.400		0.400	0.370	-			09/19/13 02:13	
Trichloroethene	<1.00		1.00	0.460	_			09/19/13 02:13	
Trichlorofluoromethane	<1.00		1.00	0.880	<del>.</del>			09/19/13 02:13	
Vinyl chloride	<1.00		1.00	0.900	-			09/19/13 02:13	
Dibromomethane	<1.00		1.00	0.410	ug/L			09/19/13 02:13	
Surrogate	%Recovery	Qualifier	Limits			_	Prepared	Analyzed	Dil F
Toluene-d8 (Surr)	98		70 - 130					09/19/13 02:13	
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					09/19/13 02:13	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

		TOL	12DCE	BFB	Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	
480-45969-7	WCSS-17-(0-0.25)	102	103	102	
480-45969-10	WCSS-21-(0-0.25)	99	97	97	
480-45969-12	WCSS-23-(0-0.25)	96	112	98	
480-45969-13	WCSS-25-(0-0.25)	101	96	97	
480-45969-15	WCSS-26-(0-0.25)	95	110	98	
480-45969-16	WCSS-27-(0-0.25)	96	111	98	
480-45969-17	WCSS-28-(0-0.25)	101	97	100	
480-45969-22	WCSS-33-(0-0.25)	103	98	97	
480-45969-23	WCSS-34-(0-0.25)	103	100	97	
480-45969-24	WCSS-35-(0-0.25)	96	114	104	
480-45969-28	WCSS-40-(0-0.25)	99	103	98	
480-45969-31	WCSS-44-(0-0.25)	99	97	96	
LCS 480-139791/20-A	Lab Control Sample	95	109	99	
LCS 480-139971/4	Lab Control Sample	100	95	101	
LCSD 480-139791/21-A	Lab Control Sample Dup	94	107	98	
LCSD 480-139971/6	Lab Control Sample Dup	100	97	101	
MB 480-139791/22-A	Method Blank	93	105	93	
MB 480-139971/35	Method Blank	98	96	99	

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

#### Method: 8260C - Volatile Organic Compounds (GC/MS)

**Matrix: Water** Prep Type: Total/NA

_				Percent Su
		TOL	12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
480-45969-38	TB-09162013	98	108	99
LCS 480-139838/4	Lab Control Sample	100	107	103
LCSD 480-139838/5	Lab Control Sample Dup	100	110	103
MB 480-139838/7	Method Blank	97	111	99

**Surrogate Legend** 

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

#### Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		25DBT2	25DBT1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
480-45969-7	WCSS-17-(0-0.25)	76	83	
480-45969-10	WCSS-21-(0-0.25)	76	81	
480-45969-12	WCSS-23-(0-0.25)	76	84	
480-45969-13	WCSS-25-(0-0.25)	76	81	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		25DBT2	25DBT1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
480-45969-15	WCSS-26-(0-0.25)	76	82	
480-45969-16	WCSS-27-(0-0.25)	82	85	
480-45969-17	WCSS-28-(0-0.25)	75	81	
480-45969-22	WCSS-33-(0-0.25)	102	100	
480-45969-23	WCSS-34-(0-0.25)	78	82	
480-45969-24	WCSS-35-(0-0.25)	102	99	
480-45969-28	WCSS-40-(0-0.25)	115	93	
480-45969-31	WCSS-44-(0-0.25)	76	82	
LCS 480-139702/2-A	Lab Control Sample	80	88	
LCS 480-139702/2-A	Lab Control Sample	80	87	
LCS 480-139702/2-A	Lab Control Sample	98	97	
LCSD 480-139702/3-A	Lab Control Sample Dup	79	86	
LCSD 480-139702/3-A	Lab Control Sample Dup	77	84	
LCSD 480-139702/3-A	Lab Control Sample Dup	95	95	
MB 480-139702/1-A	Method Blank	80	89	
MB 480-139702/1-A	Method Blank	81	89	
MB 480-139702/1-A	Method Blank	98	98	

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Sur	rogate Recovery (Acce	eptance Limits)
		1COD2	2BN1	FBP1	OTPH1	
ab Sample ID	Client Sample ID	(40-140)	(40-140)	(40-140)	(40-140)	
80-45969-7	WCSS-17-(0-0.25)	53	94	112	65	
80-45969-10	WCSS-21-(0-0.25)	27 X	91	112	30 X	
80-45969-12	WCSS-23-(0-0.25)	19 X	90	108	22 X	
0-45969-13	WCSS-25-(0-0.25)	42	95	112	46	
80-45969-15	WCSS-26-(0-0.25)	44	93	110	51	
0-45969-16	WCSS-27-(0-0.25)	22 X	89	108	55	
0-45969-17	WCSS-28-(0-0.25)	15 X	89	103	18 X	
0-45969-22	WCSS-33-(0-0.25)	29 X	95	111	35 X	
)-45969-23	WCSS-34-(0-0.25)	38 X	96	110	42	
)-45969-24	WCSS-35-(0-0.25)	49	96	109	59	
0-45969-28	WCSS-40-(0-0.25)	31 X	90	104	39 X	
0-45969-31	WCSS-44-(0-0.25)	46	95	107	55	
S 480-139607/2-B	Lab Control Sample	67	101	119	82	
SD 480-139607/3-B	Lab Control Sample Dup	71	95	113	85	
3 480-139607/1-B	Method Blank	70	88	106	80	

Surrogate Legend

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-139791/22-A

Matrix: Solid

Analysis Batch: 140106

Client Sample ID: Method Blank
Prep Type: Total/NA

Prep Batch: 139791

Analyto	MB MB	ы	MD	Unit	D	Dropored	Analyzad	Dii F
Analyte	Result Qualifier	RL		Unit	— –	Prepared	Analyzed	Dil F
1,1,1,2-Tetrachloroethane	<0.125	0.125	0.0250	mg/Kg		09/19/13 18:34	09/19/13 23:40	
1,1,1-Trichloroethane	<0.125	0.125	0.0182			09/19/13 18:34	09/19/13 23:40	
1,1,2,2-Tetrachloroethane	<0.125	0.125	0.0406			09/19/13 18:34	09/19/13 23:40	
1,1,2-Trichloroethane	<0.125	0.125	0.0325			09/19/13 18:34	09/19/13 23:40	
1,1-Dichloroethane	<0.125	0.125	0.0305			09/19/13 18:34	09/19/13 23:40	
1,1-Dichloroethene	<0.125	0.125	0.0306			09/19/13 18:34	09/19/13 23:40	
1,1-Dichloropropene	<0.125	0.125	0.0355			09/19/13 18:34	09/19/13 23:40	
1,2,3-Trichlorobenzene	<0.125	0.125	0.0266			09/19/13 18:34	09/19/13 23:40	
1,2,3-Trichloropropane	<0.125	0.125	0.0255			09/19/13 18:34	09/19/13 23:40	
1,2,4-Trichlorobenzene	<0.125	0.125	0.0152			09/19/13 18:34	09/19/13 23:40	
1,2,4-Trimethylbenzene	<0.125	0.125	0.0480			09/19/13 18:34	09/19/13 23:40	
1,2-Dibromo-3-Chloropropane	<1.25	1.25		mg/Kg		09/19/13 18:34	09/19/13 23:40	
1,2-Dichlorobenzene	<0.125	0.125	0.0196			09/19/13 18:34	09/19/13 23:40	
1,2-Dichloroethane	<0.125	0.125	0.0126			09/19/13 18:34	09/19/13 23:40	
1,2-Dichloropropane	<0.125	0.125		mg/Kg		09/19/13 18:34	09/19/13 23:40	
1,3,5-Trimethylbenzene	<0.125	0.125	0.0161			09/19/13 18:34	09/19/13 23:40	
1,3-Dichlorobenzene	<0.125	0.125	0.0129			09/19/13 18:34	09/19/13 23:40	
1,3-Dichloropropane	<0.125	0.125	0.0150			09/19/13 18:34	09/19/13 23:40	
I,4-Dichlorobenzene	<0.125	0.125		mg/Kg		09/19/13 18:34	09/19/13 23:40	
I,4-Dioxane	<12.5	12.5		mg/Kg		09/19/13 18:34	09/19/13 23:40	
2,2-Dichloropropane	<0.125	0.125	0.0425			09/19/13 18:34	09/19/13 23:40	
2-Butanone (MEK)	<1.25	1.25	0.0915	mg/Kg		09/19/13 18:34	09/19/13 23:40	
2-Chlorotoluene	<0.125	0.125	0.0164	mg/Kg		09/19/13 18:34	09/19/13 23:40	
2-Hexanone	<1.25	1.25	0.125	mg/Kg		09/19/13 18:34	09/19/13 23:40	
1-Chlorotoluene	<0.125	0.125	0.0295	mg/Kg		09/19/13 18:34	09/19/13 23:40	
1-Isopropyltoluene	<0.125	0.125	0.0201	mg/Kg		09/19/13 18:34	09/19/13 23:40	
I-Methyl-2-pentanone (MIBK)	<1.25	1.25	0.0820	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Acetone	<12.5	12.5	0.211	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Benzene	<0.125	0.125	0.0123	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Bromobenzene	<0.125	0.125	0.0440	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Bromoform	<0.125	0.125	0.125	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Bromomethane	<0.250	0.250	0.0225	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Carbon disulfide	<0.125	0.125	0.125	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Carbon tetrachloride	<0.125	0.125	0.0242	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Chlorobenzene	<0.125	0.125	0.0330	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Chlorobromomethane	<0.125	0.125	0.0181	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Chlorodibromomethane	<0.125	0.125	0.0320	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Chloroethane	<0.250	0.250	0.0565	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Chloroform	<0.125	0.125	0.0155	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Chloromethane	<0.250	0.250	0.0151	mg/Kg		09/19/13 18:34	09/19/13 23:40	
is-1,2-Dichloroethene	<0.125	0.125	0.0320	mg/Kg		09/19/13 18:34	09/19/13 23:40	
sis-1,3-Dichloropropene	<0.125	0.125	0.0360	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Dichlorobromomethane	<0.125	0.125	0.0335	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Dichlorodifluoromethane	<0.250	0.250	0.0207	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Ethyl ether	<0.125	0.125	0.105	mg/Kg		09/19/13 18:34	09/19/13 23:40	
Ethylbenzene	<0.125	0.125	0.0173			09/19/13 18:34	09/19/13 23:40	
Ethylene Dibromide	<0.125	0.125	0.0321			09/19/13 18:34	09/19/13 23:40	
Hexachlorobutadiene	<0.125	0.125	0.0293			09/19/13 18:34	09/19/13 23:40	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

StAMENCA 300 ID. 400-43909-1

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-139791/22-A

**Matrix: Solid** 

Analysis Batch: 140106

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 139791

Analysis Baton: 140100								Trop Batom 100701		
	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Isopropyl ether	<0.125		0.125	0.125	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Isopropylbenzene	<0.125		0.125	0.0377	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Methyl tert-butyl ether	<0.125		0.125	0.0246	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Methylene Chloride	<0.125		0.125	0.115	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
m-Xylene & p-Xylene	<0.250		0.250	0.0420	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Naphthalene	<1.25		1.25	0.0335	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
n-Butylbenzene	<0.125		0.125	0.0218	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
N-Propylbenzene	<0.125		0.125	0.0200	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
o-Xylene	<0.125		0.125	0.0327	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
sec-Butylbenzene	<0.125		0.125	0.0218	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Styrene	<0.125		0.125	0.0125	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Tert-amyl methyl ether	<0.125		0.125	0.0640	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Tert-butyl ethyl ether	<0.125		0.125	0.110	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
tert-Butylbenzene	<0.125		0.125	0.0260	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Tetrachloroethene	<0.125		0.125	0.0336	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Tetrahydrofuran	<2.50		2.50	0.230	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Toluene	<0.125		0.125	0.0189	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
trans-1,2-Dichloroethene	<0.125		0.125	0.0258	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
trans-1,3-Dichloropropene	<0.125		0.125	0.110	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Trichloroethene	<0.125		0.125	0.0550	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Trichlorofluoromethane	<0.250		0.250	0.0237	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Vinyl chloride	<0.125		0.125	0.0305	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	
Dibromomethane	<0.125		0.125	0.0258	mg/Kg		09/19/13 18:34	09/19/13 23:40	1	

ſΒ	MB	

Surrogate	%Recovery	Qualifier	Limits	Prepa	red	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		70 - 130	09/19/13	18:34	09/19/13 23:40	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130	09/19/13	18:34	09/19/13 23:40	1
4-Bromofluorobenzene (Surr)	93		70 - 130	09/19/13	18:34	09/19/13 23:40	1

Lab Sample ID: LCS 480-139791/20-A

**Matrix: Solid** 

Analysis Batch: 140106

Client Sample ID:	Lab (	Control	Sample
	Prep	Type: T	otal/NA

Prep Type: Total/NA Prep Batch: 139791

•	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	1.25	1.319		mg/Kg		105	70 - 130
1,1,1-Trichloroethane	1.25	1.441		mg/Kg		115	70 - 130
1,1,2,2-Tetrachloroethane	1.25	1.207		mg/Kg		97	70 - 130
1,1,2-Trichloroethane	1.25	1.244		mg/Kg		99	70 - 130
1,1-Dichloroethane	1.25	1.393		mg/Kg		111	70 - 130
1,1-Dichloroethene	1.25	1.345		mg/Kg		108	70 - 130
1,1-Dichloropropene	1.25	1.382		mg/Kg		111	70 - 130
1,2,3-Trichlorobenzene	1.25	1.283		mg/Kg		103	70 - 130
1,2,3-Trichloropropane	1.25	1.190		mg/Kg		95	70 - 130
1,2,4-Trichlorobenzene	1.25	1.367		mg/Kg		109	70 - 130
1,2,4-Trimethylbenzene	1.25	1.318		mg/Kg		105	70 - 130
1,2-Dibromo-3-Chloropropane	1.25	1.479		mg/Kg		118	70 - 130
1,2-Dichlorobenzene	1.25	1.257		mg/Kg		101	70 - 130
1,2-Dichloroethane	1.25	1.465		mg/Kg		117	70 - 130

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# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139791/20-A

Matrix: Solid

<b>Client Sample ID: Lab Control Sample</b>
Prep Type: Total/NA
Prep Batch: 139791

Analysis Batch: 140106								Batch: 13979 <sup>,</sup>
	Spike		LCS		_		%Rec.	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
1,2-Dichloropropane	1.25	1.303		mg/Kg		104	70 - 130	
1,3,5-Trimethylbenzene	1.25	1.329		mg/Kg		106	70 - 130	
1,3-Dichlorobenzene	1.25	1.277		mg/Kg		102	70 _ 130	
1,3-Dichloropropane	1.25	1.236		mg/Kg		99	70 - 130	
1,4-Dichlorobenzene	1.25	1.290		mg/Kg		103	70 - 130	
1,4-Dioxane	50.0	56.86		mg/Kg		114	70 - 130	
2,2-Dichloropropane	1.25	1.375		mg/Kg		110	70 - 130	
2-Butanone (MEK)	6.25	9.241	*	mg/Kg		148	70 - 130	
2-Chlorotoluene	1.25	1.244		mg/Kg		99	70 - 130	
2-Hexanone	6.25	6.496		mg/Kg		104	70 - 130	
4-Chlorotoluene	1.25	1.315		mg/Kg		105	70 - 130	
4-Isopropyltoluene	1.25	1.385		mg/Kg		111	70 - 130	
4-Methyl-2-pentanone (MIBK)	6.25	6.436		mg/Kg		103	70 - 130	
Acetone	6.25	6.967	J	mg/Kg		111	70 - 130	
Benzene	1.25	1.322		mg/Kg		106	70 - 130	
Bromobenzene	1.25	1.205		mg/Kg		96	70 - 130	
Bromoform	1.25	1.109		mg/Kg		89	70 - 130	
Bromomethane	1.25	1.108		mg/Kg		89	70 - 130	
Carbon disulfide	1.25	1.342		mg/Kg		107	70 - 130	
Carbon tetrachloride	1.25	1.484		mg/Kg		119	70 - 130	
Chlorobenzene	1.25	1.271		mg/Kg		102	70 - 130	
Chlorobromomethane	1.25	1.296		mg/Kg		104	70 - 130	
Chlorodibromomethane	1.25	1.177		mg/Kg		94	70 - 130	
Chloroethane	1.25	1.223		mg/Kg		98	70 - 130	
Chloroform	1.25	1.370		mg/Kg		110	70 - 130	
Chloromethane	1.25	1.364		mg/Kg		109	70 - 130	
cis-1,2-Dichloroethene	1.25	1.315		mg/Kg		105	70 - 130 70 <sub>-</sub> 130	
cis-1,3-Dichloropropene	1.25	1.430		mg/Kg		114	70 <sub>-</sub> 130	
Dichlorobromomethane	1.25	1.394		mg/Kg		111	70 - 130	
Dichlorodifluoromethane	2.50	2.916				117	70 <sub>-</sub> 130	
				mg/Kg		107		
Ethyl ether	1.25	1.339		mg/Kg			70 - 130	
Ethylbenzene  Ethylbenzene	1.25	1.302		mg/Kg		104	70 <sub>-</sub> 130	
Ethylene Dibromide	1.25	1.314		mg/Kg		105	70 <sub>-</sub> 130	
Hexachlorobutadiene	1.25	1.396		mg/Kg		112	70 - 130	
Isopropyl ether	1.25	1.431		mg/Kg		114	70 - 130	
Isopropylbenzene	1.25	1.294		mg/Kg		104	70 - 130	
Methyl tert-butyl ether	1.25	1.317		mg/Kg		105	70 - 130	
Methylene Chloride	1.25	1.302		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	2.50	2.564		mg/Kg		103	70 - 130	
Naphthalene	1.25	1.280		mg/Kg		102	70 - 130	
n-Butylbenzene	1.25	1.404		mg/Kg		112	70 - 130	
N-Propylbenzene	1.25	1.313		mg/Kg		105	70 - 130	
o-Xylene	1.25	1.296		mg/Kg		104	70 - 130	
sec-Butylbenzene	1.25	1.337		mg/Kg		107	70 - 130	
Styrene	1.25	1.308		mg/Kg		105	70 - 130	
Tert-amyl methyl ether	1.25	1.289		mg/Kg		103	70 - 130	
Tert-butyl ethyl ether	1.25	1.370		mg/Kg		110	70 - 130	
tert-Butylbenzene	1.25	1.298		mg/Kg		104	70 - 130	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139791/20-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Prep Batch: 139791 Analysis Batch: 140106

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	1.25	1.404		mg/Kg		112	70 - 130	
Tetrahydrofuran	6.25	6.290		mg/Kg		101	70 - 130	
Toluene	1.25	1.246		mg/Kg		100	70 - 130	
trans-1,2-Dichloroethene	1.25	1.321		mg/Kg		106	70 - 130	
trans-1,3-Dichloropropene	1.25	1.372		mg/Kg		110	70 - 130	
Trichloroethene	1.25	1.392		mg/Kg		111	70 - 130	
Trichlorofluoromethane	1.25	1.561		mg/Kg		125	70 - 130	
Vinyl chloride	1.25	1.397		mg/Kg		112	70 - 130	
Dibromomethane	1.25	1.311		mg/Kg		105	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	109		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 480-139791/21-A

**Matrix: Solid** 

Analysis Batch: 140106

Client Sample ID: Lab	<b>Control Sample Dup</b>
	Dune Trans. Total/NIA

Prep Type: Total/NA **Prep Batch: 139791** 

7 maryolo Batom 7 to too	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	1.25	1.258		mg/Kg		101	70 - 130	5	20
1,1,1-Trichloroethane	1.25	1.306		mg/Kg		104	70 - 130	10	20
1,1,2,2-Tetrachloroethane	1.25	1.240		mg/Kg		99	70 - 130	3	20
1,1,2-Trichloroethane	1.25	1.231		mg/Kg		98	70 - 130	1	20
1,1-Dichloroethane	1.25	1.260		mg/Kg		101	70 - 130	10	20
1,1-Dichloroethene	1.25	1.201		mg/Kg		96	70 - 130	11	20
1,1-Dichloropropene	1.25	1.262		mg/Kg		101	70 - 130	9	20
1,2,3-Trichlorobenzene	1.25	1.320		mg/Kg		106	70 - 130	3	20
1,2,3-Trichloropropane	1.25	1.223		mg/Kg		98	70 - 130	3	20
1,2,4-Trichlorobenzene	1.25	1.349		mg/Kg		108	70 - 130	1	20
1,2,4-Trimethylbenzene	1.25	1.268		mg/Kg		101	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	1.25	1.502		mg/Kg		120	70 - 130	2	20
1,2-Dichlorobenzene	1.25	1.250		mg/Kg		100	70 - 130	1	20
1,2-Dichloroethane	1.25	1.423		mg/Kg		114	70 - 130	3	20
1,2-Dichloropropane	1.25	1.227		mg/Kg		98	70 - 130	6	20
1,3,5-Trimethylbenzene	1.25	1.288		mg/Kg		103	70 - 130	3	20
1,3-Dichlorobenzene	1.25	1.232		mg/Kg		99	70 - 130	4	20
1,3-Dichloropropane	1.25	1.222		mg/Kg		98	70 - 130	1	20
1,4-Dichlorobenzene	1.25	1.246		mg/Kg		100	70 - 130	3	20
1,4-Dioxane	50.0	53.70		mg/Kg		107	70 - 130	6	20
2,2-Dichloropropane	1.25	1.304		mg/Kg		104	70 - 130	5	20
2-Butanone (MEK)	6.25	9.020	*	mg/Kg		144	70 - 130	2	20
2-Chlorotoluene	1.25	1.231		mg/Kg		98	70 - 130	1	20
2-Hexanone	6.25	6.436		mg/Kg		103	70 - 130	1	20
4-Chlorotoluene	1.25	1.283		mg/Kg		103	70 - 130	3	20
4-Isopropyltoluene	1.25	1.279		mg/Kg		102	70 - 130	8	20
4-Methyl-2-pentanone (MIBK)	6.25	6.377		mg/Kg		102	70 - 130	1	20
Acetone	6.25	6.831	J	mg/Kg		109	70 - 130	2	20

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-139791/21-A

Matrix: Solid

Analysis Batch: 140106

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 139791

Analysis Batch: 140106	0-11						Prep Batch: 139791		
Amelyte	Spike		LCSD	1114	_	0/ D	%Rec.	DDD	RPD
Analyte	Added	1.218	Qualifier	Unit	D	<b>%Rec</b> 97	70 - 130	<b>RPD</b> 8	Limi 20
Benzene				mg/Kg					
Bromobenzene	1.25	1.217		mg/Kg		97	70 - 130		20
Bromoform	1.25	1.136		mg/Kg		91	70 <sub>-</sub> 130	2	20
Bromomethane	1.25	1.043		mg/Kg		83	70 - 130	6	20
Carbon disulfide	1.25	1.211		mg/Kg		97	70 - 130	10	20
Carbon tetrachloride	1.25	1.354		mg/Kg		108	70 - 130	9	20
Chlorobenzene	1.25	1.224		mg/Kg		98	70 - 130	4	20
Chlorobromomethane	1.25	1.267		mg/Kg		101	70 - 130	2	20
Chlorodibromomethane	1.25	1.176		mg/Kg		94	70 - 130	0	20
Chloroethane	1.25	1.129		mg/Kg		90	70 - 130	8	20
Chloroform	1.25	1.281		mg/Kg		102	70 - 130	7	20
Chloromethane	1.25	1.217		mg/Kg		97	70 - 130	11	20
cis-1,2-Dichloroethene	1.25	1.222		mg/Kg		98	70 - 130	7	20
cis-1,3-Dichloropropene	1.25	1.338		mg/Kg		107	70 - 130	7	20
Dichlorobromomethane	1.25	1.314		mg/Kg		105	70 - 130	6	20
Dichlorodifluoromethane	2.50	2.507		mg/Kg		100	70 - 130	15	20
Ethyl ether	1.25	1.302		mg/Kg		104	70 - 130	3	20
Ethylbenzene	1.25	1.198		mg/Kg		96	70 - 130	8	20
Ethylene Dibromide	1.25	1.271		mg/Kg		102	70 - 130	3	20
Hexachlorobutadiene	1.25	1.264		mg/Kg		101	70 - 130	10	20
Isopropyl ether	1.25	1.375		mg/Kg		110	70 - 130	4	20
Isopropylbenzene	1.25	1.220		mg/Kg		98	70 - 130	6	20
Methyl tert-butyl ether	1.25	1.273		mg/Kg		102	70 - 130	3	20
Methylene Chloride	1.25	1.205		mg/Kg		96	70 - 130	8	20
m-Xylene & p-Xylene	2.50	2.393		mg/Kg		96	70 - 130	7	20
Naphthalene	1.25	1.287		mg/Kg		103	70 - 130	1	20
n-Butylbenzene	1.25	1.312		mg/Kg		105	70 - 130	7	20
N-Propylbenzene	1.25	1.260		mg/Kg		101	70 - 130	4	20
o-Xylene	1.25	1.196		mg/Kg		96	70 - 130	8	20
sec-Butylbenzene	1.25	1.273		mg/Kg		102	70 - 130	5	20
Styrene	1.25	1.225		mg/Kg		98	70 - 130	7	20
Tert-amyl methyl ether	1.25	1.249		mg/Kg		100	70 - 130	3	20
Tert-butyl ethyl ether	1.25	1.341		mg/Kg		107	70 - 130	2	20
tert-Butylbenzene	1.25	1.280		mg/Kg		102	70 - 130	1	20
Tetrachloroethene	1.25	1.351		mg/Kg		108	70 - 130	4	20
Tetrahydrofuran	6.25	5.995		mg/Kg		96	70 - 130	5	20
Toluene	1.25	1.168		mg/Kg		93	70 - 130	6	20
trans-1,2-Dichloroethene	1.25	1.183		mg/Kg		95	70 - 130	11	20
trans-1,3-Dichloropropene	1.25	1.332		mg/Kg		107	70 - 130	3	20
Trichloroethene	1.25	1.263		mg/Kg		101	70 - 130	10	20
Trichlorofluoromethane	1.25	1.395		mg/Kg		112	70 - 130	11	20
Vinyl chloride	1.25	1.231		mg/Kg		98	70 - 130	13	20
Dibromomethane	1.25	1.314		mg/Kg		105	70 - 130	0	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	94		70 - 130
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-139838/7

**Matrix: Water** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

	2	
	1	3 23:46
	1	3 23:46
	1	3 23:46
	1	3 23:46
8	1	3 23:46
	1	3 23:46
9	1	3 23:46
	1	3 23:46
	1	3 23:46

	МВ	мв							
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil F
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.350				09/18/13 23:46	
1,1,1-Trichloroethane	<1.00		1.00	0.820				09/18/13 23:46	
1,1,2,2-Tetrachloroethane	<0.500		0.500	0.210				09/18/13 23:46	
1,1,2-Trichloroethane	<1.00		1.00	0.230				09/18/13 23:46	
1,1-Dichloroethane	<1.00		1.00	0.380	ug/L			09/18/13 23:46	
1,1-Dichloroethene	<1.00		1.00	0.290	ug/L			09/18/13 23:46	
1,1-Dichloropropene	<1.00		1.00	0.720	ug/L			09/18/13 23:46	
1,2,3-Trichlorobenzene	<1.00		1.00	0.410	ug/L			09/18/13 23:46	
1,2,3-Trichloropropane	<1.00		1.00	0.890	ug/L			09/18/13 23:46	
1,2,4-Trichlorobenzene	<1.00		1.00	0.410	ug/L			09/18/13 23:46	
1,2,4-Trimethylbenzene	<1.00		1.00	0.750	ug/L			09/18/13 23:46	
1,2-Dibromo-3-Chloropropane	<5.00		5.00	0.390	ug/L			09/18/13 23:46	
1,2-Dichlorobenzene	<1.00		1.00	0.790	ug/L			09/18/13 23:46	
1,2-Dichloroethane	<1.00		1.00	0.210	ug/L			09/18/13 23:46	
1,2-Dichloropropane	<1.00		1.00	0.720	ug/L			09/18/13 23:46	
1,3,5-Trimethylbenzene	<1.00		1.00	0.770	ug/L			09/18/13 23:46	
1,3-Dichlorobenzene	<1.00		1.00	0.780	ug/L			09/18/13 23:46	
1,3-Dichloropropane	<1.00		1.00	0.750	ug/L			09/18/13 23:46	
1,4-Dichlorobenzene	<1.00		1.00	0.840	ug/L			09/18/13 23:46	
1,4-Dioxane	<50.0		50.0	9.32	ug/L			09/18/13 23:46	
2,2-Dichloropropane	<1.00		1.00	0.400	ug/L			09/18/13 23:46	
2-Butanone (MEK)	<10.0		10.0	1.32	ug/L			09/18/13 23:46	
2-Chlorotoluene	<1.00		1.00	0.860	ug/L			09/18/13 23:46	
2-Hexanone	<10.0		10.0	1.24	ug/L			09/18/13 23:46	
4-Chlorotoluene	<1.00		1.00	0.840	ug/L			09/18/13 23:46	
4-Isopropyltoluene	<1.00		1.00	0.310	ug/L			09/18/13 23:46	
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/18/13 23:46	
Acetone	<50.0		50.0	3.00	ug/L			09/18/13 23:46	
Benzene	<1.00		1.00	0.410	ug/L			09/18/13 23:46	
Bromobenzene	<1.00		1.00	0.800	ug/L			09/18/13 23:46	
Bromoform	<1.00		1.00	0.260	ug/L			09/18/13 23:46	
Bromomethane	<2.00		2.00	0.690	ug/L			09/18/13 23:46	
Carbon disulfide	<10.0		10.0	0.190				09/18/13 23:46	
Carbon tetrachloride	<1.00		1.00	0.270	ug/L			09/18/13 23:46	
Chlorobenzene	<1.00		1.00	0.750	ug/L			09/18/13 23:46	
Chlorobromomethane	<1.00		1.00	0.870				09/18/13 23:46	
Chlorodibromomethane	<0.500		0.500	0.320	ug/L			09/18/13 23:46	
Chloroethane	<2.00		2.00	0.320				09/18/13 23:46	
Chloroform	<1.00		1.00	0.340				09/18/13 23:46	
Chloromethane	<2.00		2.00	0.350				09/18/13 23:46	
cis-1,2-Dichloroethene	<1.00		1.00	0.810	_			09/18/13 23:46	
cis-1,3-Dichloropropene	<0.400		0.400	0.360				09/18/13 23:46	
Dichlorobromomethane	<0.500		0.500	0.390				09/18/13 23:46	
Dichlorodifluoromethane	<1.00		1.00	0.680				09/18/13 23:46	
Ethyl ether	<1.00		1.00	0.720	-			09/18/13 23:46	
Ethylbenzene	<1.00		1.00	0.740				09/18/13 23:46	
Ethylene Dibromide	<1.00		1.00	0.730	-			09/18/13 23:46	
Hexachlorobutadiene	<0.400		0.400	0.730	_			09/18/13 23:46	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 480-139838/7

**Matrix: Water** 

Analysis Batch: 139838

Client Sample ID: Method Blank

Prep Type: Total/NA

	INID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<10.0		10.0	0.590	ug/L			09/18/13 23:46	1
Isopropylbenzene	<1.00		1.00	0.790	ug/L			09/18/13 23:46	1
Methyl tert-butyl ether	<1.00		1.00	0.160	ug/L			09/18/13 23:46	1
Methylene Chloride	<1.00		1.00	0.440	ug/L			09/18/13 23:46	1
m-Xylene & p-Xylene	<2.00		2.00	0.660	ug/L			09/18/13 23:46	1
Naphthalene	<5.00		5.00	0.430	ug/L			09/18/13 23:46	1
n-Butylbenzene	<1.00		1.00	0.640	ug/L			09/18/13 23:46	1
N-Propylbenzene	<1.00		1.00	0.690	ug/L			09/18/13 23:46	1
o-Xylene	<1.00		1.00	0.760	ug/L			09/18/13 23:46	1
sec-Butylbenzene	<1.00		1.00	0.750	ug/L			09/18/13 23:46	1
Styrene	<1.00		1.00	0.730	ug/L			09/18/13 23:46	1
Tert-amyl methyl ether	<5.00		5.00	0.270	ug/L			09/18/13 23:46	1
Tert-butyl ethyl ether	<5.00		5.00	0.294	ug/L			09/18/13 23:46	1
tert-Butylbenzene	<1.00		1.00	0.810	ug/L			09/18/13 23:46	1
Tetrachloroethene	<1.00		1.00	0.360	ug/L			09/18/13 23:46	1
Tetrahydrofuran	<10.0		10.0	1.25	ug/L			09/18/13 23:46	1
Toluene	<1.00		1.00	0.510	ug/L			09/18/13 23:46	1
trans-1,2-Dichloroethene	<1.00		1.00	0.900	ug/L			09/18/13 23:46	1
trans-1,3-Dichloropropene	<0.400		0.400	0.370	ug/L			09/18/13 23:46	1
Trichloroethene	<1.00		1.00	0.460	ug/L			09/18/13 23:46	1
Trichlorofluoromethane	<1.00		1.00	0.880	ug/L			09/18/13 23:46	1
Vinyl chloride	<1.00		1.00	0.900	ug/L			09/18/13 23:46	1
Dibromomethane	<1.00		1.00	0.410	ug/L			09/18/13 23:46	1
Dibromomethane	<1.00		1.00	0.410	ug/L			09/16/13 23.40	

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		09/18/13 23:46	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		09/18/13 23:46	1
4-Bromofluorobenzene (Surr)	99		70 - 130		09/18/13 23:46	1

Lab Sample ID: LCS 480-139838/4

**Matrix: Water** 

Analysis Batch: 139838

Client Sample	ID: Lab Control Sample
	Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	25.0	26.10		ug/L		104	70 - 130
1,1,1-Trichloroethane	25.0	27.33		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.94		ug/L		104	70 - 130
1,1,2-Trichloroethane	25.0	25.86		ug/L		103	70 - 130
1,1-Dichloroethane	25.0	26.47		ug/L		106	70 - 130
1,1-Dichloroethene	25.0	26.63		ug/L		107	70 - 130
1,1-Dichloropropene	25.0	26.54		ug/L		106	70 - 130
1,2,3-Trichlorobenzene	25.0	26.60		ug/L		106	70 - 130
1,2,3-Trichloropropane	25.0	25.39		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	25.0	26.78		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	25.0	26.67		ug/L		107	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	31.56		ug/L		126	70 - 130
1,2-Dichlorobenzene	25.0	25.90		ug/L		104	70 - 130
1,2-Dichloroethane	25.0	27.58		ug/L		110	70 - 130

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10/14/2013

# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139838/4

**Matrix: Water** 

<b>Client Sample ID:</b>	<b>Lab Control Sample</b>
	Prep Type: Total/NA

	ı: 139838 Spike		LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,2-Dichloropropane	25.0	25.42	-	ug/L		102	70 - 130
1,3,5-Trimethylbenzene	25.0	26.86		ug/L		107	70 - 130
1,3-Dichlorobenzene	25.0	25.77		ug/L		103	70 - 130
1,3-Dichloropropane	25.0	25.64		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.73		ug/L		103	70 - 130
1,4-Dioxane	1000	1183		ug/L		118	70 - 130
2,2-Dichloropropane	25.0	27.60		ug/L		110	70 - 130
2-Butanone (MEK)	125	187.4	*	ug/L		150	70 - 130
2-Chlorotoluene	25.0	25.24		ug/L		101	70 - 130
2-Hexanone	125	136.7		ug/L		109	70 - 130
4-Chlorotoluene	25.0	26.60		ug/L		106	70 - 130
4-Isopropyltoluene	25.0	27.41		ug/L		110	70 - 130
4-Methyl-2-pentanone (MIBK)	125	136.0		ug/L		109	70 - 130
Acetone	125	141.4		ug/L		113	70 - 130
Benzene	25.0	25.76		ug/L		103	70 - 130
Bromobenzene	25.0	24.94		ug/L		100	70 - 130
Bromoform	25.0	23.50		ug/L		94	70 - 130
Bromomethane	25.0	24.23		ug/L		97	70 - 130
Carbon disulfide	25.0	27.67		ug/L		111	70 - 130
Carbon tetrachloride	25.0	28.00		ug/L		112	70 - 130
Chlorobenzene	25.0	25.56		ug/L		102	70 - 130
Chlorobromomethane	25.0	25.20		ug/L		101	70 - 130
Chlorodibromomethane	25.0	24.14		ug/L		97	70 - 130
Chloroethane	25.0	25.65		ug/L		103	70 - 130
Chloroform	25.0	26.41		ug/L		106	70 - 130
Chloromethane	25.0	26.52		ug/L		106	70 - 130
cis-1,2-Dichloroethene	25.0	26.27		ug/L		105	70 - 130
cis-1,3-Dichloropropene	25.0	28.38		ug/L		114	70 - 130
Dichlorobromomethane	25.0	27.29		ug/L		109	70 - 130
Dichlorodifluoromethane	50.0	62.45		ug/L		125	70 - 130
Ethyl ether	25.0	25.85		ug/L		103	70 - 130
Ethylbenzene	25.0	25.87		ug/L		103	70 - 130
Ethylene Dibromide	25.0	26.90		ug/L		108	70 - 130
Hexachlorobutadiene	25.0	27.27		ug/L		109	70 - 130
Isopropyl ether	25.0	28.14		ug/L		113	70 - 130
Isopropylbenzene	25.0	25.80		ug/L		103	70 - 130
Methyl tert-butyl ether	25.0	25.61		ug/L		102	70 - 130
Methylene Chloride	25.0	25.17		ug/L		101	70 - 130
m-Xylene & p-Xylene	50.0	51.78		ug/L		104	70 - 130
Naphthalene	25.0	27.00		ug/L		108	70 - 130
n-Butylbenzene	25.0	27.70				111	70 - 130
N-Propylbenzene	25.0	26.58		ug/L ug/L		106	70 - 130 70 - 130
o-Xylene	25.0	25.82				103	70 - 130 70 - 130
				ug/L			70 - 130
sec-Butylbenzene	25.0 25.0	27.13 26.32		ug/L		109	70 - 130 70 - 130
Styrene Test amul methyl ether				ug/L		105	
Tert-amyl methyl ether	25.0	25.17		ug/L		101	70 - 130
Tert-butyl ethyl ether tert-Butylbenzene	25.0 25.0	26.56 26.33		ug/L ug/L		106 105	70 <sub>-</sub> 130 70 <sub>-</sub> 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139838/4

**Matrix: Water** 

Analysis Batch: 139838

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Tetrachloroethene	25.0	28.27		ug/L		113	70 - 130
Tetrahydrofuran	125	125.9		ug/L		101	70 - 130
Toluene	25.0	25.50		ug/L		102	70 - 130
trans-1,2-Dichloroethene	25.0	25.91		ug/L		104	70 - 130
trans-1,3-Dichloropropene	25.0	27.59		ug/L		110	70 - 130
Trichloroethene	25.0	26.29		ug/L		105	70 - 130
Trichlorofluoromethane	25.0	29.59		ug/L		118	70 - 130
Vinyl chloride	25.0	26.94		ug/L		108	70 - 130
Dibromomethane	25.0	25.86		ug/L		103	70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 480-139838/5

**Matrix: Water** 

Analysis Batch: 139838

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	25.0	26.12		ug/L		104	70 - 130	0	20
1,1,1-Trichloroethane	25.0	26.49		ug/L		106	70 - 130	3	20
1,1,2,2-Tetrachloroethane	25.0	25.38		ug/L		102	70 - 130	2	20
1,1,2-Trichloroethane	25.0	24.95		ug/L		100	70 - 130	4	20
1,1-Dichloroethane	25.0	25.57		ug/L		102	70 - 130	3	20
1,1-Dichloroethene	25.0	24.86		ug/L		99	70 - 130	7	20
1,1-Dichloropropene	25.0	25.56		ug/L		102	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	26.66		ug/L		107	70 - 130	0	20
1,2,3-Trichloropropane	25.0	25.08		ug/L		100	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	26.75		ug/L		107	70 - 130	0	20
1,2,4-Trimethylbenzene	25.0	25.13		ug/L		101	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	31.27		ug/L		125	70 - 130	1	20
1,2-Dichlorobenzene	25.0	24.74		ug/L		99	70 - 130	5	20
1,2-Dichloroethane	25.0	28.14		ug/L		113	70 - 130	2	20
1,2-Dichloropropane	25.0	25.56		ug/L		102	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	25.39		ug/L		102	70 - 130	6	20
1,3-Dichlorobenzene	25.0	24.30		ug/L		97	70 - 130	6	20
1,3-Dichloropropane	25.0	25.09		ug/L		100	70 - 130	2	20
1,4-Dichlorobenzene	25.0	24.93		ug/L		100	70 - 130	3	20
1,4-Dioxane	1000	1162		ug/L		116	70 - 130	2	20
2,2-Dichloropropane	25.0	25.50		ug/L		102	70 - 130	8	20
2-Butanone (MEK)	125	187.8	*	ug/L		150	70 - 130	0	20
2-Chlorotoluene	25.0	24.28		ug/L		97	70 - 130	4	20
2-Hexanone	125	135.3		ug/L		108	70 - 130	1	20
4-Chlorotoluene	25.0	25.95		ug/L		104	70 - 130	2	20
4-Isopropyltoluene	25.0	26.28		ug/L		105	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	125	134.4		ug/L		107	70 - 130	1	20
Acetone	125	143.5		ug/L		115	70 - 130	2	20

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-139838/5

**Matrix: Water** 

Analysis Batch: 139838

Client Sample ID: Lab Control Sample Dup

Prep	Type:	<b>Total</b>	/NA
	•		

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	25.0	25.14		ug/L		101	70 - 130	2	20
Bromobenzene	25.0	24.31		ug/L		97	70 - 130	3	20
Bromoform	25.0	23.56		ug/L		94	70 - 130	0	20
Bromomethane	25.0	23.85		ug/L		95	70 - 130	2	20
Carbon disulfide	25.0	26.06		ug/L		104	70 <sub>-</sub> 130	6	20
Carbon tetrachloride	25.0	27.25		ug/L		109	70 - 130	3	20
Chlorobenzene	25.0	24.72		ug/L		99	70 <sub>-</sub> 130	3	20
Chlorobromomethane	25.0	25.75		ug/L		103	70 <sub>-</sub> 130	2	20
Chlorodibromomethane	25.0	23.95		ug/L		96	70 - 130	1	20
Chloroethane	25.0	23.73		ug/L		95	70 <sub>-</sub> 130	8	20
Chloroform	25.0	26.23		ug/L		105	70 <sub>-</sub> 130	1	20
Chloromethane	25.0	26.30		ug/L		105	70 - 130	1	20
cis-1,2-Dichloroethene	25.0	25.36		ug/L		101	70 - 130	4	20
cis-1,3-Dichloropropene	25.0	27.66		ug/L		111	70 - 130	3	20
Dichlorobromomethane	25.0	27.08		ug/L		108	70 - 130	1	20
Dichlorodifluoromethane	50.0	59.85		ug/L		120	70 - 130	4	20
Ethyl ether	25.0	25.91		ug/L		104	70 <sub>-</sub> 130	0	20
Ethylbenzene	25.0	24.56		ug/L		98	70 - 130	5	20
Ethylene Dibromide	25.0	26.08		ug/L		104	70 - 130	3	20
Hexachlorobutadiene	25.0	26.30		ug/L		105	70 - 130	4	20
Isopropyl ether	25.0	27.74		ug/L		111	70 - 130	1	20
Isopropylbenzene	25.0	24.24		ug/L		97	70 - 130	6	20
Methyl tert-butyl ether	25.0	26.18		ug/L		105	70 - 130	2	20
Methylene Chloride	25.0	24.58		ug/L		98	70 - 130	2	20
m-Xylene & p-Xylene	50.0	49.43		ug/L		99	70 - 130	5	20
Naphthalene	25.0	27.21		ug/L		109	70 - 130	1	20
n-Butylbenzene	25.0	26.39		ug/L		106	70 - 130	5	20
N-Propylbenzene	25.0	25.19		ug/L		101	70 - 130	5	20
o-Xylene	25.0	24.77		ug/L		99	70 - 130	4	20
sec-Butylbenzene	25.0	25.33		ug/L		101	70 - 130	7	20
Styrene	25.0	25.39		ug/L		102	70 - 130	4	20
Tert-amyl methyl ether	25.0	25.28		ug/L		101	70 - 130	0	20
Tert-butyl ethyl ether	25.0	26.77		ug/L		107	70 - 130	1	20
tert-Butylbenzene	25.0	24.66		ug/L		99	70 - 130	7	20
Tetrachloroethene	25.0	26.86		ug/L		107	70 - 130	5	20
Tetrahydrofuran	125	126.1		ug/L		101	70 - 130	0	20
Toluene	25.0	23.93		ug/L		96	70 - 130	6	20
trans-1,2-Dichloroethene	25.0	24.95		ug/L		100	70 - 130	4	20
trans-1,3-Dichloropropene	25.0	27.62		ug/L		110	70 - 130	0	20
Trichloroethene	25.0	25.76		ug/L		103	70 - 130	2	20
Trichlorofluoromethane	25.0	28.16		ug/L		113	70 - 130	5	20
Vinyl chloride	25.0	26.58		ug/L		106	70 - 130	1	20
Dibromomethane	25.0	26.04		ug/L		104	70 - 130	1	20

LCSD LCSD

Surrogate	%Recovery Qua		Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	110		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-139971/35

Matrix: Solid

Analysis Batch: 139971

Hexachlorobutadiene

Client Sample ID: Method Blank Prep Type: Total/NA

. Total/NA

	MB MB							
Analyte	Result Qua			Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.00250	0.00250	0.000500	mg/Kg			09/19/13 13:00	•
1,1,1-Trichloroethane	<0.00250	0.00250	0.000363	mg/Kg			09/19/13 13:00	,
1,1,2,2-Tetrachloroethane	<0.00250	0.00250	0.000811	mg/Kg			09/19/13 13:00	
1,1,2-Trichloroethane	<0.00250	0.00250	0.000650				09/19/13 13:00	•
1,1-Dichloroethane	<0.00250	0.00250	0.000610				09/19/13 13:00	•
1,1-Dichloroethene	<0.00250	0.00250	0.000612				09/19/13 13:00	
1,1-Dichloropropene	<0.00250	0.00250	0.000710	mg/Kg			09/19/13 13:00	•
1,2,3-Trichlorobenzene	<0.00250	0.00250	0.000531	mg/Kg			09/19/13 13:00	•
1,2,3-Trichloropropane	<0.00250	0.00250	0.000509	mg/Kg			09/19/13 13:00	
1,2,4-Trichlorobenzene	<0.00250	0.00250	0.000304	mg/Kg			09/19/13 13:00	1
1,2,4-Trimethylbenzene	<0.00250	0.00250	0.000960	mg/Kg			09/19/13 13:00	1
1,2-Dibromo-3-Chloropropane	<0.0250	0.0250	0.00250	mg/Kg			09/19/13 13:00	1
1,2-Dichlorobenzene	<0.00250	0.00250	0.000391	mg/Kg			09/19/13 13:00	1
1,2-Dichloroethane	<0.00250	0.00250	0.000251	mg/Kg			09/19/13 13:00	1
1,2-Dichloropropane	<0.00250	0.00250	0.00250	mg/Kg			09/19/13 13:00	1
1,3,5-Trimethylbenzene	<0.00250	0.00250	0.000322	mg/Kg			09/19/13 13:00	1
1,3-Dichlorobenzene	<0.00250	0.00250	0.000257	mg/Kg			09/19/13 13:00	1
1,3-Dichloropropane	<0.00250	0.00250	0.000300	mg/Kg			09/19/13 13:00	1
1,4-Dichlorobenzene	<0.00250	0.00250	0.000700	mg/Kg			09/19/13 13:00	1
1,4-Dioxane	<0.250	0.250	0.0241	mg/Kg			09/19/13 13:00	1
2,2-Dichloropropane	< 0.00250	0.00250	0.000850	mg/Kg			09/19/13 13:00	1
2-Butanone (MEK)	<0.0250	0.0250	0.00183	mg/Kg			09/19/13 13:00	1
2-Chlorotoluene	<0.00250	0.00250	0.000328	mg/Kg			09/19/13 13:00	1
2-Hexanone	<0.0250	0.0250	0.00250	mg/Kg			09/19/13 13:00	1
4-Chlorotoluene	<0.00250	0.00250	0.000590	mg/Kg			09/19/13 13:00	
4-Isopropyltoluene	<0.00250	0.00250	0.000401	mg/Kg			09/19/13 13:00	
4-Methyl-2-pentanone (MIBK)	<0.0250	0.0250	0.00164	mg/Kg			09/19/13 13:00	1
Acetone	<0.250	0.250	0.00421	mg/Kg			09/19/13 13:00	<sub>1</sub>
Benzene	<0.00250	0.00250	0.000245				09/19/13 13:00	1
Bromobenzene	<0.00250	0.00250	0.000880				09/19/13 13:00	1
Bromoform	<0.00250	0.00250	0.00250				09/19/13 13:00	1
Bromomethane	<0.00500	0.00500	0.000450				09/19/13 13:00	1
Carbon disulfide	<0.00250	0.00250	0.00250				09/19/13 13:00	1
Carbon tetrachloride	<0.00250	0.00250	0.000484				09/19/13 13:00	1
Chlorobenzene	<0.00250	0.00250	0.000660				09/19/13 13:00	1
Chlorobromomethane	<0.00250	0.00250	0.000361				09/19/13 13:00	1
Chlorodibromomethane	<0.00250	0.00250	0.000640				09/19/13 13:00	1
Chloroethane	<0.00500	0.00500	0.00113				09/19/13 13:00	1
Chloroform	<0.00250	0.00250	0.000309				09/19/13 13:00	1
Chloromethane	<0.00500	0.00500	0.000302				09/19/13 13:00	
cis-1,2-Dichloroethene	<0.00300	0.00300	0.000302				09/19/13 13:00	1
cis-1,3-Dichloropropene	<0.00250	0.00250	0.000040				09/19/13 13:00	1
Dichlorobromomethane	<0.00250	0.00250	0.000720				09/19/13 13:00	
								,
Dichlorodifluoromethane  Ethyl other	<0.00500	0.00500	0.000413				09/19/13 13:00	1
Ethyllenzone	<0.00250	0.00250	0.00210				09/19/13 13:00	1 ر ر
Ethylbenzene  Ethylana Dibramida	<0.00250	0.00250	0.000345				09/19/13 13:00	1
Ethylene Dibromide	<0.00250	0.00250	0.000642	ing/Kg			09/19/13 13:00	1

TestAmerica Buffalo

09/19/13 13:00

0.00250

0.000586 mg/Kg

<0.00250

3

6

8

10

4.0

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-139971/35

Matrix: Solid

Analysis Batch: 139971

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Isopropyl ether	<0.00250		0.00250	0.00250	mg/Kg			09/19/13 13:00	
Isopropylbenzene	<0.00250		0.00250	0.000754	mg/Kg			09/19/13 13:00	
Methyl tert-butyl ether	<0.00250		0.00250	0.000491	mg/Kg			09/19/13 13:00	
Methylene Chloride	0.004234		0.00250	0.00230	mg/Kg			09/19/13 13:00	
m-Xylene & p-Xylene	<0.00500		0.00500	0.000840	mg/Kg			09/19/13 13:00	
Naphthalene	<0.0250		0.0250	0.000670	mg/Kg			09/19/13 13:00	
n-Butylbenzene	<0.00250		0.00250	0.000435	mg/Kg			09/19/13 13:00	
N-Propylbenzene	<0.00250		0.00250	0.000400	mg/Kg			09/19/13 13:00	
o-Xylene	<0.00250		0.00250	0.000653	mg/Kg			09/19/13 13:00	
sec-Butylbenzene	<0.00250		0.00250	0.000435	mg/Kg			09/19/13 13:00	
Styrene	<0.00250		0.00250	0.000250	mg/Kg			09/19/13 13:00	
Tert-amyl methyl ether	<0.00250		0.00250	0.00128	mg/Kg			09/19/13 13:00	
Tert-butyl ethyl ether	<0.00250		0.00250	0.00220	mg/Kg			09/19/13 13:00	
tert-Butylbenzene	<0.00250		0.00250	0.000520	mg/Kg			09/19/13 13:00	
Tetrachloroethene	<0.00250		0.00250	0.000671	mg/Kg			09/19/13 13:00	
Tetrahydrofuran	<0.0500		0.0500	0.00460	mg/Kg			09/19/13 13:00	
Toluene	<0.00250		0.00250	0.000378	mg/Kg			09/19/13 13:00	
trans-1,2-Dichloroethene	<0.00250		0.00250	0.000516	mg/Kg			09/19/13 13:00	
trans-1,3-Dichloropropene	<0.00250		0.00250	0.00220	mg/Kg			09/19/13 13:00	
Trichloroethene	<0.00250		0.00250	0.00110	mg/Kg			09/19/13 13:00	
Trichlorofluoromethane	<0.00500		0.00500	0.000473	mg/Kg			09/19/13 13:00	
Vinyl chloride	<0.00250		0.00250	0.000610	mg/Kg			09/19/13 13:00	

<0.00250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		09/19/13 13:00	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		09/19/13 13:00	1
4-Bromofluorobenzene (Surr)	99		70 - 130		09/19/13 13:00	1

0.00250

0.000515 mg/Kg

Lab Sample ID: LCS 480-139971/4

**Matrix: Solid** 

Dibromomethane

Analysis Batch: 139971

Client	Sample	ID:	Lab	Con	trol	Samp	le
			Prep	тур Тур	e: T	otal/N	Α

09/19/13 13:00

Amaryolo Batom 10001.								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1,2-Tetrachloroethane	0.0500	0.05878		mg/Kg		118	70 - 130	
1,1,1-Trichloroethane	0.0500	0.05062		mg/Kg		101	70 - 130	
1,1,2,2-Tetrachloroethane	0.0500	0.04905		mg/Kg		98	70 - 130	
1,1,2-Trichloroethane	0.0500	0.05006		mg/Kg		100	70 - 130	
1,1-Dichloroethane	0.0500	0.04983		mg/Kg		100	70 - 130	
1,1-Dichloroethene	0.0500	0.04982		mg/Kg		100	70 - 130	
1,1-Dichloropropene	0.0500	0.04865		mg/Kg		97	70 - 130	
1,2,3-Trichlorobenzene	0.0500	0.06023		mg/Kg		120	70 - 130	
1,2,3-Trichloropropane	0.0500	0.05008		mg/Kg		100	70 - 130	
1,2,4-Trichlorobenzene	0.0500	0.06005		mg/Kg		120	70 - 130	
1,2,4-Trimethylbenzene	0.0500	0.05036		mg/Kg		101	70 - 130	
1,2-Dibromo-3-Chloropropane	0.0500	0.04561		mg/Kg		91	70 - 130	
1,2-Dichlorobenzene	0.0500	0.05205		mg/Kg		104	70 - 130	
1,2-Dichloroethane	0.0500	0.04669		mg/Kg		93	70 - 130	

# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139971/4

Matrix: Solid

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Analysis Batch: 139971	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,2-Dichloropropane	0.0500	0.04863		mg/Kg		97	70 - 130
1,3,5-Trimethylbenzene	0.0500	0.05103		mg/Kg		102	70 <sub>-</sub> 130
1,3-Dichlorobenzene	0.0500	0.05174		mg/Kg		103	70 <sub>-</sub> 130
1,3-Dichloropropane	0.0500	0.04966		mg/Kg		99	70 - 130
1,4-Dichlorobenzene	0.0500	0.05003		mg/Kg		100	70 - 130
1,4-Dioxane	2.00	1.980		mg/Kg		99	70 - 130
2,2-Dichloropropane	0.0500	0.05122		mg/Kg		102	70 <sub>-</sub> 130
2-Butanone (MEK)	0.250	0.3109		mg/Kg		124	70 - 130
2-Chlorotoluene	0.0500	0.05249		mg/Kg		105	70 - 130
2-Hexanone	0.250	0.2359		mg/Kg		94	70 <sub>-</sub> 130
4-Chlorotoluene	0.0500	0.05167		mg/Kg		103	70 - 130
4-Isopropyltoluene	0.0500	0.05290		mg/Kg		106	70 - 130
4-Methyl-2-pentanone (MIBK)	0.250	0.2382		mg/Kg		95	70 - 130
Acetone	0.250	0.2561		mg/Kg		102	70 - 130
Benzene	0.0500	0.04854		mg/Kg		97	70 - 130
Bromobenzene	0.0500	0.05086		mg/Kg		102	70 - 130
Bromoform	0.0500	0.04817		mg/Kg		96	70 - 130
Bromomethane	0.0500	0.04636		mg/Kg		93	70 - 130
Carbon disulfide	0.0500	0.06350		mg/Kg		127	70 - 130
Carbon tetrachloride	0.0500	0.05376		mg/Kg		108	70 - 130
Chlorobenzene	0.0500	0.05244		mg/Kg		105	70 - 130
Chlorobromomethane	0.0500	0.05244		mg/Kg		103	70 - 130 70 - 130
Chlorodibromomethane	0.0500	0.03202		mg/Kg		100	70 - 130
Chloroethane	0.0500	0.04993				95	70 - 130 70 - 130
Chloroform	0.0500	0.04743		mg/Kg		95 97	70 - 130 70 - 130
				mg/Kg			
Chloromethane	0.0500	0.04254		mg/Kg		85 400	70 - 130
cis-1,2-Dichloroethene	0.0500	0.05020		mg/Kg		100	70 <sub>-</sub> 130
cis-1,3-Dichloropropene	0.0500	0.05270		mg/Kg		105	70 - 130
Dichlorobromomethane	0.0500	0.05325		mg/Kg		106	70 <sub>-</sub> 130
Dichlorodifluoromethane	0.100	0.1049		mg/Kg		105	70 - 130
Ethyl ether	0.0500	0.04465		mg/Kg		89	70 - 130
Ethylbenzene	0.0500	0.05209		mg/Kg		104	70 - 130
Ethylene Dibromide	0.0500	0.05248		mg/Kg		105	70 - 130
Hexachlorobutadiene	0.0500	0.05567		mg/Kg		111	70 - 130
Isopropyl ether	0.0500	0.04746		mg/Kg		95	70 - 130
Isopropylbenzene	0.0500	0.05080		mg/Kg		102	70 - 130
Methyl tert-butyl ether	0.0500	0.04836		mg/Kg		97	70 - 130
Methylene Chloride	0.0500	0.04520		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.100	0.1050		mg/Kg		105	70 - 130
Naphthalene	0.0500	0.04989		mg/Kg		100	70 - 130
n-Butylbenzene	0.0500	0.05321		mg/Kg		106	70 - 130
N-Propylbenzene	0.0500	0.05063		mg/Kg		101	70 - 130
o-Xylene	0.0500	0.05330		mg/Kg		107	70 - 130
sec-Butylbenzene	0.0500	0.05154		mg/Kg		103	70 - 130
Styrene	0.0500	0.05370		mg/Kg		107	70 - 130
Tert-amyl methyl ether	0.0500	0.04918		mg/Kg		98	70 - 130
Tert-butyl ethyl ether	0.0500	0.04789		mg/Kg		96	70 - 130
tert-Butylbenzene	0.0500	0.05209		mg/Kg		104	70 - 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139971/4

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Analysis Batch: 139971

7 mayoro Zatom 10001 1	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	0.0500	0.05936	-	mg/Kg		119	70 - 130	
Tetrahydrofuran	0.250	0.2192		mg/Kg		88	70 - 130	
Toluene	0.0500	0.05100		mg/Kg		102	70 - 130	
trans-1,2-Dichloroethene	0.0500	0.05336		mg/Kg		107	70 - 130	
trans-1,3-Dichloropropene	0.0500	0.05396		mg/Kg		108	70 - 130	
Trichloroethene	0.0500	0.05084		mg/Kg		102	70 - 130	
Trichlorofluoromethane	0.0500	0.05122		mg/Kg		102	70 - 130	
Vinyl chloride	0.0500	0.04794		mg/Kg		96	70 - 130	
Dibromomethane	0.0500	0.04991		mg/Kg		100	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 480-139971/6

**Matrix: Solid** 

Analysis Batch: 139971

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 139971									
	Spike		LCSD				%Rec.		RPD
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	0.0500	0.05801		mg/Kg		116	70 - 130	1	20
1,1,1-Trichloroethane	0.0500	0.05027		mg/Kg		101	70 - 130	1	20
1,1,2,2-Tetrachloroethane	0.0500	0.05289		mg/Kg		106	70 - 130	8	20
1,1,2-Trichloroethane	0.0500	0.05242		mg/Kg		105	70 - 130	5	20
1,1-Dichloroethane	0.0500	0.04929		mg/Kg		99	70 - 130	1	20
1,1-Dichloroethene	0.0500	0.04922		mg/Kg		98	70 - 130	1	20
1,1-Dichloropropene	0.0500	0.04876		mg/Kg		98	70 - 130	0	20
1,2,3-Trichlorobenzene	0.0500	0.06141		mg/Kg		123	70 - 130	2	20
1,2,3-Trichloropropane	0.0500	0.05515		mg/Kg		110	70 - 130	10	20
1,2,4-Trichlorobenzene	0.0500	0.05996		mg/Kg		120	70 - 130	0	20
1,2,4-Trimethylbenzene	0.0500	0.05011		mg/Kg		100	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	0.0500	0.04977		mg/Kg		100	70 - 130	9	20
1,2-Dichlorobenzene	0.0500	0.05250		mg/Kg		105	70 - 130	1	20
1,2-Dichloroethane	0.0500	0.04745		mg/Kg		95	70 - 130	2	20
1,2-Dichloropropane	0.0500	0.04869		mg/Kg		97	70 - 130	0	20
1,3,5-Trimethylbenzene	0.0500	0.05010		mg/Kg		100	70 - 130	2	20
1,3-Dichlorobenzene	0.0500	0.05150		mg/Kg		103	70 - 130	0	20
1,3-Dichloropropane	0.0500	0.05126		mg/Kg		103	70 - 130	3	20
1,4-Dichlorobenzene	0.0500	0.05037		mg/Kg		101	70 - 130	1	20
1,4-Dioxane	2.00	2.471	*	mg/Kg		124	70 - 130	22	20
2,2-Dichloropropane	0.0500	0.04987		mg/Kg		100	70 - 130	3	20
2-Butanone (MEK)	0.250	0.3505	*	mg/Kg		140	70 - 130	12	20
2-Chlorotoluene	0.0500	0.05179		mg/Kg		104	70 - 130	1	20
2-Hexanone	0.250	0.2640		mg/Kg		106	70 - 130	11	20
4-Chlorotoluene	0.0500	0.05561		mg/Kg		111	70 - 130	7	20
4-Isopropyltoluene	0.0500	0.05219		mg/Kg		104	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	0.250	0.2641		mg/Kg		106	70 - 130	10	20
Acetone	0.250	0.2598		mg/Kg		104	70 - 130	1	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-139971/6

Matrix: Solid

Analysis Batch: 139971

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04774		mg/Kg		95	70 - 130	2	20
Bromobenzene	0.0500	0.05094		mg/Kg		102	70 - 130	0	20
Bromoform	0.0500	0.05075		mg/Kg		101	70 - 130	5	20
Bromomethane	0.0500	0.03849		mg/Kg		77	70 - 130	19	20
Carbon disulfide	0.0500	0.06167		mg/Kg		123	70 - 130	3	20
Carbon tetrachloride	0.0500	0.05244		mg/Kg		105	70 - 130	2	20
Chlorobenzene	0.0500	0.05160		mg/Kg		103	70 - 130	2	20
Chlorobromomethane	0.0500	0.05327		mg/Kg		107	70 - 130	2	20
Chlorodibromomethane	0.0500	0.05131		mg/Kg		103	70 - 130	3	20
Chloroethane	0.0500	0.04082		mg/Kg		82	70 - 130	15	20
Chloroform	0.0500	0.04832		mg/Kg		97	70 - 130	0	20
Chloromethane	0.0500	0.04164		mg/Kg		83	70 - 130	2	20
cis-1,2-Dichloroethene	0.0500	0.04974		mg/Kg		99	70 - 130	1	20
cis-1,3-Dichloropropene	0.0500	0.05287		mg/Kg		106	70 - 130	0	20
Dichlorobromomethane	0.0500	0.05395		mg/Kg		108	70 - 130	1	20
Dichlorodifluoromethane	0.100	0.1037		mg/Kg		104	70 - 130	1	20
Ethyl ether	0.0500	0.04915		mg/Kg		98	70 - 130	10	20
Ethylbenzene	0.0500	0.05082		mg/Kg		102	70 - 130	2	20
Ethylene Dibromide	0.0500	0.05438		mg/Kg		109	70 - 130	4	20
Hexachlorobutadiene	0.0500	0.05316		mg/Kg		106	70 - 130	5	20
Isopropyl ether	0.0500	0.04795		mg/Kg		96	70 - 130	1	20
Isopropylbenzene	0.0500	0.05009		mg/Kg		100	70 - 130	1	20
Methyl tert-butyl ether	0.0500	0.05064		mg/Kg		101	70 - 130	5	20
Methylene Chloride	0.0500	0.04473		mg/Kg		89	70 - 130	1	20
m-Xylene & p-Xylene	0.100	0.1035		mg/Kg		103	70 - 130	1	20
Naphthalene	0.0500	0.05416		mg/Kg		108	70 - 130	8	20
n-Butylbenzene	0.0500	0.05186		mg/Kg		104	70 - 130	3	20
N-Propylbenzene	0.0500	0.05021		mg/Kg		100	70 - 130	1	20
o-Xylene	0.0500	0.05240		mg/Kg		105	70 - 130	2	20
sec-Butylbenzene	0.0500	0.05045		mg/Kg		101	70 - 130	2	20
Styrene	0.0500	0.05300		mg/Kg		106	70 - 130	1	20
Tert-amyl methyl ether	0.0500	0.05123		mg/Kg		102	70 - 130	4	20
Tert-butyl ethyl ether	0.0500	0.04833		mg/Kg		97	70 - 130	1	20
tert-Butylbenzene	0.0500	0.05130		mg/Kg		103	70 <sub>-</sub> 130	2	20
Tetrachloroethene	0.0500	0.06039		mg/Kg		121	70 <sub>-</sub> 130	2	20
Tetrahydrofuran	0.250	0.2454		mg/Kg		98	70 - 130	11	20
Toluene	0.0500	0.05014		mg/Kg		100	70 - 130	2	20
trans-1,2-Dichloroethene	0.0500	0.05228		mg/Kg		105	70 <sub>-</sub> 130	2	20
trans-1,3-Dichloropropene	0.0500	0.05486		mg/Kg		110	70 - 130	2	20
Trichloroethene	0.0500	0.04948		mg/Kg		99	70 - 130	3	20
Trichlorofluoromethane	0.0500	0.04989		mg/Kg		100	70 - 130	3	20
Vinyl chloride	0.0500	0.04564		mg/Kg		91	70 - 130	5	20
Dibromomethane	0.0500	0.05170		mg/Kg		103	70 - 130	4	20

LCSD LCSD
Surrogate %Recovery Qualifier

 Toluene-d8 (Surr)
 100
 70 - 130

 1,2-Dichloroethane-d4 (Surr)
 97
 70 - 130

 4-Bromofluorobenzene (Surr)
 101
 70 - 130

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Limits

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Prep Batch: 139702** 

**Prep Batch: 139702** 

# Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-139702/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA **Prep Batch: 139702** 

Analysis Batch: 139631

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/18/13 09:12	1
C9-C10 Aromatics	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/18/13 09:12	1
C9-C12 Aliphatics (unadjusted)	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/18/13 09:12	1

MR MR Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 09/18/13 08:33 09/18/13 09:12 2,5-Dibromotoluene (fid) 80 70 - 130 2,5-Dibromotoluene (pid) 70 - 130 09/18/13 08:33 09/18/13 09:12 89

Lab Sample ID: MB 480-139702/1-A Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Solid** Analysis Batch: 139888

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/19/13 10:16	1
C9-C10 Aromatics	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/19/13 10:16	1
C9-C12 Aliphatics (unadjusted)	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/19/13 10:16	1

	MB MB				
Surrogate	%Recovery Quality	ifier Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	81	70 - 130	09/18/13 08:33	09/19/13 10:16	1
2,5-Dibromotoluene (pid)	89	70 - 130	09/18/13 08:33	09/19/13 10:16	1

Lab Sample ID: MB 480-139702/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 140221

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/21/13 09:22	1
C9-C10 Aromatics	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/21/13 09:22	1
C9-C12 Aliphatics (unadjusted)	<0.250		0.250	0.0100	mg/Kg		09/18/13 08:33	09/21/13 09:22	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	98		70 - 130	09/18/13 08:33	09/21/13 09:22	1
2,5-Dibromotoluene (pid)	98		70 - 130	09/18/13 08:33	09/21/13 09:22	1

Lab Sample ID: LCS 480-139702/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 139631

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
C5-C8 Aliphatics (unadjusted)	0.750	0.7915		mg/Kg		106	70 - 130	
C9-C10 Aromatics	0.250	0.2413	J	mg/Kg		97	70 - 130	
C9-C12 Aliphatics (unadjusted)	0.750	0.7171		mg/Kg		96	70 - 130	

C9-C12 Aliphatics (unadjusted)			0.750	0.7171	mg/Kg	96	70 - 130
	LCS	LCS					
Surrogate	%Recovery	Qualifier	Limits				
2,5-Dibromotoluene (fid)	80		70 - 130				
2,5-Dibromotoluene (pid)	88		70 - 130				

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**Prep Batch: 139702** 

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

2,5-Dibromotoluene (fid)

2,5-Dibromotoluene (pid)

2,5-Dibromotoluene (fid)

2,5-Dibromotoluene (pid)

## Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

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Lab Sample ID: LCS 480-13970 Matrix: Solid Analysis Batch: 139888	2/2-A		Spike	ıce	LCS		Client	Sample		trol Sample e: Total/NA tch: 139702
Analyta			Added		Qualifier	Unit	D	%Rec	Limits	
Analyte			Added	Result	Qualifier	Unit		%Rec	Limits	
C5-C8 Aliphatics (unadjusted)			0.750	0.8982		mg/Kg		120	70 - 130	
C9-C10 Aromatics			0.250	0.2652		mg/Kg		106	70 - 130	
C9-C12 Aliphatics (unadjusted)			0.750	0.8040		mg/Kg		107	70 - 130	
	LCS I	LCS								
Surrogate	%Recovery	Qualifier	l imits							

Lab Sample ID: LCS 480-139	702/2-A						Client	Sample	ID: Lab Control Sampl
Matrix: Solid									Prep Type: Total/N/
Analysis Batch: 140221									Prep Batch: 13970
			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
C5-C8 Aliphatics (unadjusted)			0.750	0.7728		mg/Kg		103	70 - 130
C9-C10 Aromatics			0.250	0.2542		mg/Kg		102	70 - 130
C9-C12 Aliphatics (unadjusted)			0.750	0.7864		mg/Kg		105	70 - 130
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
2,5-Dibromotoluene (fid)	98		70 - 130						
2,5-Dibromotoluene (pid)	97		70 - 130						

70 - 130

70 - 130

			Clie	nt San	iple ID:	Lab Contro	I Sampl	e Dup
						Prep T	ype: To	tal/NA
						Prep I	Batch: 1	39702
Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.750	0.7771		mg/Kg		104	70 - 130	2	25
0.250	0.2341	J	mg/Kg		94	70 - 130	3	25
0.750	0.7085		mg/Kg		94	70 - 130	1	25
	0.750 0.250	Added Result 0.750 0.7771 0.250 0.2341	Added         Result         Qualifier           0.750         0.7771         0.2341         J	Spike         LCSD         LCSD           Added         Result         Qualifier         Unit           0.750         0.7771         mg/Kg           0.250         0.2341         J         mg/Kg	Spike         LCSD         LCSD           Added         Result         Qualifier         Unit         D           0.750         0.7771         mg/Kg         mg/Kg           0.250         0.2341         J         mg/Kg	Spike         LCSD         LCSD           Added         Result         Qualifier         Unit         D         %Rec           0.750         0.7771         mg/Kg         104           0.250         0.2341         J         mg/Kg         94	Spike   LCSD   LCSD   Kec.	Added         Result 0.750         Qualifier Unit mg/Kg         D mg/Kg         %Rec Limits 104         RPD 70 - 130         2           0.250         0.2341         J mg/Kg         94         70 - 130         3

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,5-Dibromotoluene (fid)	79		70 - 130
2,5-Dibromotoluene (pid)	86		70 - 130

Lab Sample ID: LCSD 480-139702/3-A Matrix: Solid						Clie	nt Sam	ple ID: I	ab Contro	l Sample	
Analysis Batch: 139888										Batch: 1	
,			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C5-C8 Aliphatics (unadjusted)		<del></del> -	0.750	0.8508		mg/Kg		113	70 - 130	5	25
C9-C10 Aromatics			0.250	0.2564		mg/Kg		103	70 - 130	3	25
C9-C12 Aliphatics (unadjusted)			0.750	0.7791		mg/Kg		104	70 - 130	3	25
L	CSD L	LCSD									
Surrogate %Reco	very G	Qualifier	Limits								

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-139702/3-A

**Matrix: Solid** 

Analysis Batch: 140221

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 139702** 

	Spike	LCSD	LCSD			%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit E	%Rec	Limits	RPD	Limit	
C5-C8 Aliphatics (unadjusted)	0.750	0.7577		mg/Kg	101	70 - 130	2	25	
C9-C10 Aromatics	0.250	0.2487	J	mg/Kg	99	70 - 130	2	25	
C9-C12 Aliphatics (unadjusted)	0.750	0.7712		mg/Kg	103	70 - 130	2	25	

LCSD LCSD

Surrogate %Recovery Qualifier Limits 2,5-Dibromotoluene (fid) 95 70 - 130 2,5-Dibromotoluene (pid) 95 70 - 130

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-139607/1-B

**Matrix: Solid** 

Pyrene

C11-C22 Aromatics (unadjusted)

C19-C36 Aliphatics

C9-C18 Aliphatics

Analysis Batch: 139854

Client Sample ID: Method Blank Prep Type: Total/NA

09/19/13 02:30

09/19/13 02:30

09/19/13 02:30

09/19/13 02:30

**Prep Batch: 139607** 

мв мв

< 0.497

MB MB

	IND	III.D							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.497		0.497	0.0805	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Acenaphthylene	<0.497		0.497	0.0895	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Anthracene	<0.497		0.497	0.0944	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Benzo[a]anthracene	<0.497		0.497	0.0755	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Benzo[a]pyrene	<0.497		0.497	0.0716	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Benzo[b]fluoranthene	<0.497		0.497	0.0706	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Benzo[g,h,i]perylene	0.2592	J	0.497	0.0845	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Benzo[k]fluoranthene	<0.497		0.497	0.0726	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
2-Methylnaphthalene	<0.497		0.497	0.0974	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Chrysene	<0.497		0.497	0.0885	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Dibenz(a,h)anthracene	0.07151	J	0.497	0.0696	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Fluoranthene	<0.497		0.497	0.0875	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Fluorene	<0.497		0.497	0.0994	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Indeno[1,2,3-cd]pyrene	0.1014	J	0.497	0.0726	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Naphthalene	<0.497		0.497	0.0835	mg/Kg		09/18/13 05:21	09/19/13 02:30	1
Phenanthrene	0.2009	J	0.497	0.0994	mg/Kg		09/18/13 05:21	09/19/13 02:30	1

2.536 J 4.97 1.99 mg/Kg 4.97 <4 97 1.99 mg/Kg <4.97 4.97 1.99 mg/Kg

0.497

0.0905 mg/Kg

09/18/13 05:21

09/18/13 05:21

09/18/13 05:21

09/18/13 05:21

l .		<del></del>			
Surrogate	%Recovery G	Qualifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	70	40 - 140	09/18/13 05:21	09/19/13 02:30	1
2-Bromonaphthalene	88	40 - 140	09/18/13 05:21	09/19/13 02:30	1
2-Fluorobiphenyl	106	40 - 140	09/18/13 05:21	09/19/13 02:30	1
o-Terphenyl	80	40 - 140	09/18/13 05:21	09/19/13 02:30	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

# Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-139607/2-B

Matrix: Solid

Analysis Batch: 139854

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA **Prep Batch: 139607** 

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	4.96	3.980		mg/Kg		80	40 - 140
Acenaphthylene	4.96	4.088		mg/Kg		82	40 - 140
Anthracene	4.96	4.328		mg/Kg		87	40 - 140
Benzo[a]anthracene	4.96	4.167		mg/Kg		84	40 - 140
Benzo[a]pyrene	4.96	4.177		mg/Kg		84	40 - 140
Benzo[b]fluoranthene	4.96	4.128		mg/Kg		83	40 - 140
Benzo[g,h,i]perylene	4.96	3.074		mg/Kg		62	40 - 140
Benzo[k]fluoranthene	4.96	4.177		mg/Kg		84	40 - 140
2-Methylnaphthalene	4.96	3.891		mg/Kg		78	40 - 140
Chrysene	4.96	4.228		mg/Kg		85	40 - 140
Dibenz(a,h)anthracene	4.96	3.781		mg/Kg		76	40 - 140
Fluoranthene	4.96	4.154		mg/Kg		84	40 - 140
Fluorene	4.96	4.273		mg/Kg		86	40 - 140
Indeno[1,2,3-cd]pyrene	4.96	3.401		mg/Kg		69	40 - 140
Naphthalene	4.96	3.627		mg/Kg		73	40 - 140
Phenanthrene	4.96	4.363		mg/Kg		88	40 - 140
Pyrene	4.96	4.236		mg/Kg		85	40 - 140
C11-C22 Aromatics (unadjusted)	84.3	67.04		mg/Kg		80	40 - 140
C19-C36 Aliphatics	39.7	24.10		mg/Kg		61	40 - 140
C9-C18 Aliphatics	29.8	17.48		mg/Kg		59	40 - 140

LCS LCS

Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctadecane	67	40 - 140
2-Bromonaphthalene	101	40 - 140
2-Fluorobiphenyl	119	40 - 140
o-Terphenyl	82	40 - 140

Lab Sample ID: LCSD 480-139607/3-B

Matrix: Solid

Analysis Batch: 139854

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 139607** 

Analysis Daton. 100004							i iep Dateii.		
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	4.92	4.128		mg/Kg		84	40 - 140	4	25
Acenaphthylene	4.92	4.381		mg/Kg		89	40 - 140	7	25
Anthracene	4.92	4.611		mg/Kg		94	40 - 140	6	25
Benzo[a]anthracene	4.92	4.396		mg/Kg		89	40 - 140	5	25
Benzo[a]pyrene	4.92	4.408		mg/Kg		90	40 - 140	5	25
Benzo[b]fluoranthene	4.92	4.393		mg/Kg		89	40 - 140	6	25
Benzo[g,h,i]perylene	4.92	3.344		mg/Kg		68	40 - 140	8	25
Benzo[k]fluoranthene	4.92	4.396		mg/Kg		89	40 - 140	5	25
2-Methylnaphthalene	4.92	4.024		mg/Kg		82	40 - 140	3	25
Chrysene	4.92	4.454		mg/Kg		90	40 - 140	5	25
Dibenz(a,h)anthracene	4.92	4.001		mg/Kg		81	40 - 140	6	25
Fluoranthene	4.92	4.397		mg/Kg		89	40 - 140	6	25
Fluorene	4.92	4.583		mg/Kg		93	40 - 140	7	25
Indeno[1,2,3-cd]pyrene	4.92	3.615		mg/Kg		73	40 - 140	6	25
Naphthalene	4.92	3.782		mg/Kg		77	40 - 140	4	25
Phenanthrene	4.92	4.653		mg/Kg		95	40 - 140	6	25

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-139607/3-B

**Matrix: Solid** 

Analysis Batch: 139854

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Prep Batch: 139607** 

%Rec.	RPD
Rec Limits	RPD Limit
91 40 - 140	6 25
84 40 - 140	5 25
65 40 - 140	5 25
68 40 - 140	13 25
	Rec         Limits           91         40 - 140           84         40 - 140           65         40 - 140

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	71		40 - 140
2-Bromonaphthalene	95		40 - 140
2-Fluorobiphenyl	113		40 - 140
o-Terphenyl	85		40 - 140

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-139642/1-A

Client Sample ID: Method Blank

Lab Sample ID. MD 400-133042/1-A					Olient Sampi	ie ib. Metriou	Dialik
Matrix: Solid					P	Prep Type: To	tal/NA
Analysis Batch: 139953					1	Prep Batch: 1	39642
MB	MB						
Analyte Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac

	INID	INID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.05		1.05	0.418	mg/Kg	<del></del> _	09/18/13 10:50	09/18/13 22:35	1
Barium	<0.523		0.523	0.115	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Cadmium	<0.209		0.209	0.0314	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Chromium	<0.523		0.523	0.209	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Silver	<0.523		0.523	0.209	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Lead	<0.523	٨	0.523	0.251	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Selenium	<0.523		0.523	0.418	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Antimony	<0.523	٨	0.523	0.418	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Beryllium	<0.209		0.209	0.0293	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Thallium	<1.05		1.05	0.314	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Nickel	<1.05		1.05	0.241	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Vanadium	<0.523		0.523	0.115	mg/Kg		09/18/13 10:50	09/18/13 22:35	1
Zinc	1.052	J	2.61	0.160	mg/Kg		09/18/13 10:50	09/18/13 22:35	1

Lab Sample ID: LCDSRM 480-139642/3-A LCDSRM

Matrix: Solid

Analysis Batch: 139953

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 139642** 

Alialysis Datcii. 133333							FIED	Jaicii. I	39042
	Spike	LCDSRM	LCDSRM				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	182	181.6		mg/Kg		100.0	70.9 - 129. 7	5	20
Barium	143	133.5		mg/Kg		93.6	72.7 - 128. 0	2	20
Cadmium	60.2	58.06		mg/Kg		96.4	73.2 - 129. 3	7	20
Chromium	125	119.4		mg/Kg		95.8	69.8 - 129. 6	7	20
Silver	61.1	59.62		mg/Kg		97.5	66.9 - 133. 1	7	20
Lead	136	138.6	۸	mg/Kg		102.2	73.1 <sub>-</sub> 127. 2	7	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 480-139642/3-A LCDSRM

**Matrix: Solid** 

Analysis Batch: 139953

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 139642** 

	Spike	LCDSRM	LCDSRM				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Selenium	85.7	86.82		mg/Kg		101.3	63.9 - 136. 2	5	20
Antimony	106	60.86	۸	mg/Kg		57.6	23.1 <sub>- 255.</sub> 7	20	20
Beryllium	98.0	96.19		mg/Kg		98.1	74.6 - 125. 1	6	20
Thallium	144	149.8		mg/Kg		104.3	68.3 <sub>-</sub> 131. 9	6	20
Nickel	128	135.0		mg/Kg		105.8	73.1 <sub>- 129.</sub> 7	8	20
Vanadium	104	97.57		mg/Kg		94.1	66.0 - 133. 7	7	20
Zinc	203	194.6		mg/Kg		95.7	69.6 <sub>- 129.</sub> 9	7	20

LCSSRM LCSSRM

mg/Kg

Lab Sample ID: LCSSRM 480-139642/2-A

Matrix: Solid

Analysis Batch: 139953

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

**Prep Batch: 139642** %Rec.

Analyte	Added	Result Quali	fier Unit	D	%Rec	Limits	
Arsenic	182	172.4	mg/Kg		94.7	70.9 - 129.	
Barium	143	131.2	mg/Kg		91.8	7 72.7 - 128.	
Danum	143	131.2	mg/Kg		91.0	0	
Cadmium	60.4	53.89	mg/Kg		89.2		
						3	
Chromium	125	111.1	mg/Kg		88.9	69.8 - 129. 6	
Silver	61.3	55.83	mg/Kg		91.1		
						1	
Lead	136	129.2 ^	mg/Kg		95.0		
Selenium	85.9	82.64	mg/Kg		96.2	2 63.9 - 136.	
			3 3			2	
Antimony	106	49.65 ^	mg/Kg		46.8		
Beryllium	98.3	90.30	mg/Kg		91.9	7 74.6 - 125.	
Borymani	00.0	00.00	g/rtg		01.0	1	
Thallium	144	140.8	mg/Kg		97.8	68.3 - 131.	
Nickel	128	125.2	mg/Kg		97.8	9 73.1 - 129.	
NICKEI	120	123.2	mg/Ng		91.0	73.1 - 129. 7	
Vanadium	104	90.76	mg/Kg		87.3	66.0 - 133.	

Spike

Lab Sample ID: 480-45969-5 MS

**Matrix: Solid** 

Zinc

Analysis Batch: 139953

Client Sample ID: WCSS-16-(0-0.25) MS Prep Type: Total/NA

88.7 69.6 - 129.

**Prep Batch: 139642** 

-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	4.12		46.5	43.45		mg/Kg	<del>\</del>	85	75 - 125	
Barium	101		46.5	123.8	F	mg/Kg	₩	49	75 - 125	

181.0

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

# Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-45969-5 MS

**Matrix: Solid** 

Analysis Batch: 139953

Client Sample ID: WCSS-16-(0-0.25) MS Prep Type: Total/NA **Prep Batch: 139642** 

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Cadmium	2.34		46.5	40.50		mg/Kg	₩	82	75 - 125
Chromium	41.7		46.5	70.68	F	mg/Kg	₩.	62	75 <sub>-</sub> 125
Silver	<0.547		11.6	10.32		mg/Kg	☼	89	75 _ 125
Lead	484	^	46.5	487.3	^ 4	mg/Kg	₽	7	75 - 125
Selenium	1.16		46.5	39.98		mg/Kg	₩.	84	75 <sub>-</sub> 125
Antimony	2.50	^	46.5	39.52	۸	mg/Kg	₽	80	75 - 125
Beryllium	0.543		46.5	38.77		mg/Kg	☼	82	75 _ 125
Thallium	<1.09		46.5	41.26		mg/Kg	\$	89	75 <sub>-</sub> 125
Nickel	50.5		46.5	90.56		mg/Kg	₽	86	75 - 125
Vanadium	19.2		46.5	56.52		mg/Kg	☼	80	75 _ 125
Zinc	957	В	46.5	925.2	4	mg/Kg	\$	-68	75 - 125

Lab Sample ID: 480-45969-5 MSD

Matrix: Solid

Client Sample ID: WCSS-16-(0-0.25) MSD

Prep Type: Total/NA

										<b>J</b>	
Analysis Batch: 139953									Prep I	Batch: 1	39642
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	4.12		39.8	42.38		mg/Kg	₩	96	75 - 125	2	35
Barium	101		39.8	159.2	F	mg/Kg	₩	146	75 - 125	25	35
Cadmium	2.34		39.8	38.57		mg/Kg	₩	91	75 - 125	5	35
Chromium	41.7		39.8	76.82		mg/Kg	₩	88	75 - 125	8	35
Silver	<0.547		9.95	10.16		mg/Kg	₩	102	75 - 125	2	35
Lead	484	٨	39.8	617.4	^ 4	mg/Kg	₩	335	75 - 125	24	35
Selenium	1.16		39.8	38.41		mg/Kg	₩	94	75 - 125	4	35
Antimony	2.50	^	39.8	35.94	۸	mg/Kg	₩	84	75 <sub>-</sub> 125	9	35
Beryllium	0.543		39.8	36.52		mg/Kg	₩	90	75 - 125	6	35
Thallium	<1.09		39.8	39.32		mg/Kg	₩	99	75 <sub>-</sub> 125	5	35
Nickel	50.5		39.8	132.0	F	mg/Kg	₩	205	75 <sub>-</sub> 125	37	35
Vanadium	19.2		39.8	67.03		mg/Kg	₩	120	75 - 125	17	35
Zinc	957	В	39.8	1088	4	mg/Kg	₩	331	75 <sub>-</sub> 125	16	35

Lab Sample ID: MB 480-139644/1-A

**Matrix: Solid** 

Analysis Batch: 139946

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 139644

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.09		1.09	0.437	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Barium	<0.547		0.547	0.120	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Cadmium	<0.219		0.219	0.0328	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Chromium	<0.547		0.547	0.219	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Silver	<0.547		0.547	0.219	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Lead	<0.547	^	0.547	0.262	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Selenium	0.5750		0.547	0.437	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Antimony	<0.547	^	0.547	0.437	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Beryllium	<0.219		0.219	0.0306	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Thallium	<1.09		1.09	0.328	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Nickel	<1.09		1.09	0.251	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Vanadium	<0.547		0.547	0.120	mg/Kg		09/18/13 10:50	09/18/13 23:41	1
Zinc	0.5466	J	2.73	0.167	mg/Kg		09/18/13 10:50	09/18/13 23:41	1

69.6 - 129.

9

100.1

112.0

73.1 - 129. 7

mg/Kg

mg/Kg

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 480-139644/3-A LCDSRM Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 139946 Prep Batch: 139644 Spike LCDSRM LCDSRM Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 182 Arsenic 186.6 mg/Kg 102.7 70.9 - 129. 3 20 Barium 143 138.5 mg/Kg 97.0 72.7 - 128. 20 0 Cadmium 60.3 58.33 mg/Kg 96.8 73.2 - 129. 20 3 3 125 69.8 - 129. Chromium 124.9 mg/Kg 100.1 20 6 Silver 61.2 61.54 100.6 66.9 - 133. mg/Kg 20 Lead 136 143.2 ^ mg/Kg 105.5 73.1 - 127. 20 2 Selenium 85.7 91.29 mg/Kg 106.5 63.9 - 136. 20 61.80 ^ Antimony 106 mg/Kg 58.4 23.1 - 255. 20 Beryllium 98.1 98.13 100.0 74.6 - 125. mg/Kg 20 Thallium 144 152.6 106.2 68.3 - 131. 20 mg/Kg 9 73.1 - 129. Nickel 128 139.8 mg/Kg 109.5 2 20 Vanadium 104 102.0 mg/Kg 98.2 66.0 - 133. 20

Lab Sample ID: LCSSRM 480-139644/2-A Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA

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203.8

Zinc

Nickel

Matrix. Solid							Fieb Type	. I Otal/IV
Analysis Batch: 139946							Prep Bato	h: 13964
-	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	182	192.4		mg/Kg		105.7	70.9 - 129.	<del></del>
							7	
Barium	143	144.4		mg/Kg		101.0	72.7 - 128.	
							0	
Cadmium	60.4	59.95		mg/Kg		99.3	73.2 - 129.	
							3	
Chromium	125	127.2		mg/Kg		101.8		
011	24.2					400.0	6	
Silver	61.3	63.05		mg/Kg		102.9	66.9 - 133.	
Lead	136	148.9	٨	ma/Ka		109.5	1 73.1 <sub>-</sub> 127.	
Leau	130	140.9		mg/Kg		109.5	73.1 - 127.	
Selenium	85.9	92.11		mg/Kg		107.3	<del> .</del>	
Scionani	00.0	02.11		9/119		107.0	2	
Antimony	106	60.59	٨	mg/Kg		57.2	_	
,				0 0			7	
Beryllium	98.3	101.4		mg/Kg		103.1	74.6 - 125.	
							1	
Thallium	144	159.1		mg/Kg		110.5	68.3 - 131.	
							9	

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143.3

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-139644/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** 

**Analysis Batch: 139946** 

Prep Type: Total/NA Prep Batch: 139644

	Spike	LCSSRM	LCSSRM				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Vanadium	104	103.5		mg/Kg	_	99.5	66.0 - 133.	
							7	
Zinc	204	205.5		mg/Kg		100.7	69.6 - 129.	
							Q	

Client Sample ID: WCSS-47-(0-0.25) MS

Lab Sample ID: 480-45969-34 MS **Matrix: Solid** 

Analysis Batch: 139946

Prep Type: Total/NA **Prep Batch: 139644** 

Analysis Batch: 139946									Prep Batch: 139644
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	2.10		38.9	38.25		mg/Kg	₽	93	75 - 125
Barium	13.6		38.9	52.14		mg/Kg	₽	99	75 <sub>-</sub> 125
Cadmium	0.209	J	38.9	34.86		mg/Kg	₽	89	75 <sub>-</sub> 125
Chromium	8.76		38.9	45.18		mg/Kg	₽	94	75 <sub>-</sub> 125
Silver	<0.527		9.72	9.163		mg/Kg	₩	94	75 <sub>-</sub> 125
Lead	61.4	٨	38.9	95.99	٨	mg/Kg	₽	89	75 - 125
Selenium	0.444	JB	38.9	36.65		mg/Kg	\$	93	75 <sub>-</sub> 125
Antimony	2.66	^	38.9	35.90	۸	mg/Kg	₽	86	75 <sub>-</sub> 125
Beryllium	0.146	J	38.9	34.58		mg/Kg	₽	89	75 - 125
Thallium	<1.05		38.9	37.07		mg/Kg	\$	95	75 <sub>-</sub> 125
Nickel	6.08		38.9	44.42		mg/Kg	₽	99	75 - 125
Vanadium	11.5		38.9	50.56		mg/Kg	₽	100	75 <sub>-</sub> 125
Zinc	47.7	В	38.9	83.03		mg/Kg	\$	91	75 <sub>-</sub> 125

Lab Sample ID: 480-45969-34 MSD Client Sample ID: WCSS-47-(0-0.25) MSD

**Matrix: Solid** 

Analysis Batch: 139946

Prep Type: Total/NA

Prep Batch: 139644 Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier D %Rec Limits RPD Limit Analyte Unit ₩ Arsenic 2.10 41.3 38.11 mg/Kg 87 75 - 125 0 35 Barium 13.6 41.3 50.97 mg/Kg ₩ 90 75 - 125 2 35 ₽ Cadmium 0.209 41.3 35.37 mg/Kg 85 75 - 125 35 Ä Chromium 8.76 41.3 43.93 mg/Kg 85 75 - 125 35 ₩ Silver 10.3 9.091 88 75 - 125 35 < 0.527 mg/Kg Ü Lead 61.4 ^ 41.3 89.47 ^ F mg/Kg 68 75 - 125 35 41.3 Selenium 0.444 JB 36.75 88 75 - 125 35 mg/Kg ₩ Antimony 2.66 ^ 41.3 35.29 ^ mg/Kg 79 75 - 125 35 ₽ Beryllium 0 146 J 41.3 34.57 mg/Kg 83 75 - 125 0 35 Ü Thallium <1.05 41.3 37.25 mg/Kg 90 75 - 125 35 ₩ Nickel 6.08 41.3 44.22 mg/Kg 92 75 - 125 0 35 ₩ 90 75 - 125 Vanadium 11.5 41.3 48.81 mg/Kg 35 78.38 F ₩ 74 Zinc 47.7 B 41.3 mg/Kg 75 - 125 35

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 480-139621/1-A Client Sample ID: Method Blank

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 139797 **Prep Batch: 139621** 

мв мв

RL MDL Unit Result Qualifier D Dil Fac Analyte Prepared Analyzed 0.100 09/18/13 08:00 Mercury <0.100 0.00811 mg/Kg 09/18/13 12:20

Lab Sample ID: LCDSRM 480-139621/3-A LCDSRM Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Prep Batch: 139621** 

Analysis Batch: 139797

LCDSRM LCDSRM Spike RPD Result Qualifier Limit Analyte Added Unit %Rec Limits RPD Mercury 3.77 3.148 mg/Kg 83.5 50.9 - 149. 1

Lab Sample ID: LCSSRM 480-139621/2-A Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 139797

**Prep Batch: 139621** Spike LCSSRM LCSSRM %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 3.77 3.283 Mercury mg/Kg 87.1 50.9 - 149.

Client Sample ID: WCSS-47-(0-0.25) MS Lab Sample ID: 480-45969-34 MS Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 139797

**Prep Batch: 139621** Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits 0.106 0.312 0.3897 91 75 \_ 125 Mercury mg/Kg

Lab Sample ID: 480-45969-34 MSD Client Sample ID: WCSS-47-(0-0.25) MSD

**Matrix: Solid** 

Analysis Batch: 139797

**Prep Batch: 139621** MSD MSD Sample Sample Spike %Rec. RPD Result Qualifier Added Result Qualifier Unit D %Rec Limits Limit Analyte RPD Mercury 0.106 0.308 0.4137 mg/Kg ₩ 100 75 - 125

Lab Sample ID: MB 480-139623/1-A Client Sample ID: Method Blank

**Matrix: Solid** 

**Analysis Batch: 139797** 

Prep Type: Total/NA Prep Batch: 139623 мв мв

Analyte Result Qualifier RΙ MDL Unit Prepared Analyzed Dil Fac 0.0990 <0.0990 0.00802 mg/Kg 09/18/13 08:00 09/18/13 11:15 Mercury

Lab Sample ID: LCDSRM 480-139623/3-A LCDSRM

**Matrix: Solid** 

Analysis Batch: 139797 **Prep Batch: 139623** Spike LCDSRM LCDSRM %Rec. RPD Added Result Qualifier Unit D %Rec Limits RPD Limit Analyte 3.77 3.047 80.8 Mercury mg/Kg 50.9 - 149. 12

TestAmerica Buffalo

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

# **QC Sample Results**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-139623/2-A			Client Sample ID: Lab Control Sample
Matrix: Solid			Prep Type: Total/NA
Analysis Batch: 139797			Prep Batch: 139623
	Spike	LCSSRM LCSSRM	%Rec.

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	3.77	3.425		mg/Kg		90.9	50.9 - 149.	
							1	
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Lab Sample ID: 480-45969-5 W	5						Cilent	sampie	ID: MC22-	·16-(U-U.Z	5) IVI 5
Matrix: Solid									Prep 1	Type: Tot	al/NA
Analysis Batch: 139797									Prep	Batch: 13	39623
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Mercury	0.868		0.335	1.501	F	mg/Kg	<del>\</del>	189	75 - 125		

Lab Sample ID: 480-45969-5 MSD							Client Sa	mple ID	): WCSS-16	6-(0-0.25	) MSD
Matrix: Solid							Prep T	ype: To	tal/NA		
Analysis Batch: 139797									Prep	Batch: 1	39623
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.868		0.343	1.469	F	mg/Kg	₩	175	75 - 125	2	35

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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## **GC/MS VOA**

## **Prep Batch: 139791**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	5035	
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	5035	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	5035	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	5035	
LCS 480-139791/20-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 480-139791/21-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 480-139791/22-A	Method Blank	Total/NA	Solid	5035	

### Analysis Batch: 139838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-38	TB-09162013	Total/NA	Water	8260C	
LCS 480-139838/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-139838/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-139838/7	Method Blank	Total/NA	Water	8260C	

### **Prep Batch: 139957**

ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
80-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	5035	_
80-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	5035	
80-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	5035	
80-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	5035	
80-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	5035	
80-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	5035	
80-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	5035	
80-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	5035	

## Analysis Batch: 139971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	8260C	139957
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	8260C	139957
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	8260C	139957
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	8260C	139957
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	8260C	139957
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	8260C	139957
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	8260C	139957
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	8260C	139957
LCS 480-139971/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 480-139971/6	Lab Control Sample Dup	Total/NA	Solid	8260C	
MB 480-139971/35	Method Blank	Total/NA	Solid	8260C	

### Analysis Batch: 140106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	8260C	139791
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	8260C	139791
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	8260C	139791
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	8260C	139791
LCS 480-139791/20-A	Lab Control Sample	Total/NA	Solid	8260C	139791
LCSD 480-139791/21-A	Lab Control Sample Dup	Total/NA	Solid	8260C	139791
MB 480-139791/22-A	Method Blank	Total/NA	Solid	8260C	139791

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**GC VOA** 

Analysis Batch: 139631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	MAVPH	139702
LCS 480-139702/2-A	Lab Control Sample	Total/NA	Solid	MAVPH	139702
LCSD 480-139702/3-A	Lab Control Sample Dup	Total/NA	Solid	MAVPH	139702
MB 480-139702/1-A	Method Blank	Total/NA	Solid	MAVPH	139702

**Prep Batch: 139702** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	5035	
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	5035	
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	5035	
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	5035	
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	5035	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	5035	
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	5035	
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	5035	
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	5035	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	5035	
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	5035	
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	5035	
LCS 480-139702/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 480-139702/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 480-139702/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 139888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	MAVPH	139702
LCS 480-139702/2-A	Lab Control Sample	Total/NA	Solid	MAVPH	139702
LCSD 480-139702/3-A	Lab Control Sample Dup	Total/NA	Solid	MAVPH	139702
MB 480-139702/1-A	Method Blank	Total/NA	Solid	MAVPH	139702

Analysis Batch: 140221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	MAVPH	139702
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	MAVPH	139702
LCS 480-139702/2-A	Lab Control Sample	Total/NA	Solid	MAVPH	139702
LCSD 480-139702/3-A	Lab Control Sample Dup	Total/NA	Solid	MAVPH	139702
MB 480-139702/1-A	Method Blank	Total/NA	Solid	MAVPH	139702

Analysis Batch: 140681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	MA VPH	

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

## **GC VOA (Continued)**

# Analysis Batch: 140681 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	MA VPH	_
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	MA VPH	
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	MA VPH	

## GC Semi VOA

### **Prep Batch: 139607**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	3546	
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	3546	
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	3546	
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	3546	
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	3546	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	3546	
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	3546	
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	3546	
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	3546	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	3546	
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	3546	
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	3546	
LCS 480-139607/2-B	Lab Control Sample	Total/NA	Solid	3546	
LCSD 480-139607/3-B	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 480-139607/1-B	Method Blank	Total/NA	Solid	3546	

### Fraction Batch: 139639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	MA EPH Frac	139607
LCS 480-139607/2-B	Lab Control Sample	Total/NA	Solid	MA EPH Frac	139607
LCSD 480-139607/3-B	Lab Control Sample Dup	Total/NA	Solid	MA EPH Frac	139607
MB 480-139607/1-B	Method Blank	Total/NA	Solid	MA EPH Frac	139607

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

# GC Semi VOA (Continued)

# Analysis Batch: 139854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	MA-EPH	139639
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	MA-EPH	139639
LCS 480-139607/2-B	Lab Control Sample	Total/NA	Solid	MA-EPH	139639
LCSD 480-139607/3-B	Lab Control Sample Dup	Total/NA	Solid	MA-EPH	139639
MB 480-139607/1-B	Method Blank	Total/NA	Solid	MA-EPH	139639

#### **Analysis Batch: 140245**

Prep Batch	Method	Matrix	Prep Type	Client Sample ID	Lab Sample ID
_	MA-EPH	Solid	Total/NA	WCSS-17-(0-0.25)	480-45969-7
	MA-EPH	Solid	Total/NA	WCSS-21-(0-0.25)	480-45969-10
	MA-EPH	Solid	Total/NA	WCSS-23-(0-0.25)	480-45969-12
	MA-EPH	Solid	Total/NA	WCSS-25-(0-0.25)	480-45969-13
	MA-EPH	Solid	Total/NA	WCSS-26-(0-0.25)	480-45969-15
	MA-EPH	Solid	Total/NA	WCSS-27-(0-0.25)	480-45969-16
	MA-EPH	Solid	Total/NA	WCSS-28-(0-0.25)	480-45969-17
	MA-EPH	Solid	Total/NA	WCSS-33-(0-0.25)	480-45969-22
	MA-EPH	Solid	Total/NA	WCSS-34-(0-0.25)	480-45969-23
	MA-EPH	Solid	Total/NA	WCSS-35-(0-0.25)	480-45969-24
	MA-EPH	Solid	Total/NA	WCSS-40-(0-0.25)	480-45969-28
	MA-EPH	Solid	Total/NA	WCSS-44-(0-0.25)	480-45969-31

### **Metals**

#### **Prep Batch: 139621**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-19	WCSS-30-(0-0.25)	Total/NA	Solid	7471A	
480-45969-20	WCSS-31-(0-0.25)	Total/NA	Solid	7471A	
180-45969-21	WCSS-32-(0-0.25)	Total/NA	Solid	7471A	
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	7471A	
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	7471A	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	7471A	
480-45969-25	WCSS-36-(0-0.25)	Total/NA	Solid	7471A	
480-45969-26	WCSS-38-(0-0.25)	Total/NA	Solid	7471A	
480-45969-27	WCSS-39-(0-0.25)	Total/NA	Solid	7471A	
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	7471A	
180-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	7471A	
480-45969-30	WCSS-43-(0-0.25)	Total/NA	Solid	7471A	
180-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	7471A	
180-45969-32	WCSS-45-(0-0.25)	Total/NA	Solid	7471A	
480-45969-33	WCSS-46-(0-0.25)	Total/NA	Solid	7471A	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals (Continued)** 

# Prep Batch: 139621 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-34	WCSS-47-(0-0.25)	Total/NA	Solid	7471A	
480-45969-34 MS	WCSS-47-(0-0.25) MS	Total/NA	Solid	7471A	
480-45969-34 MSD	WCSS-47-(0-0.25) MSD	Total/NA	Solid	7471A	
480-45969-35	WCSS-48-(0-0.25)	Total/NA	Solid	7471A	
LCDSRM 480-139621/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	
LCSSRM 480-139621/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 480-139621/1-A	Method Blank	Total/NA	Solid	7471A	

### **Prep Batch: 139623**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	7471A	
480-45969-2	WCSS-13-(0-0.25)	Total/NA	Solid	7471A	
480-45969-3	WCSS-14-(0-0.25)	Total/NA	Solid	7471A	
480-45969-4	WCSS-15-(0-0.25)	Total/NA	Solid	7471A	
480-45969-5	WCSS-16-(0-0.25)	Total/NA	Solid	7471A	
480-45969-5 MS	WCSS-16-(0-0.25) MS	Total/NA	Solid	7471A	
480-45969-5 MSD	WCSS-16-(0-0.25) MSD	Total/NA	Solid	7471A	
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	7471A	
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	7471A	
480-45969-8	WCSS-19-(0-0.25)	Total/NA	Solid	7471A	
480-45969-9	WCSS-20-(0-0.25)	Total/NA	Solid	7471A	
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	7471A	
180-45969-11	WCSS-22-(0-0.25)	Total/NA	Solid	7471A	
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	7471A	
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	7471A	
480-45969-14	WCSS-24-(0-0.25)	Total/NA	Solid	7471A	
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	7471A	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	7471A	
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	7471A	
480-45969-18	WCSS-29-(0-0.25)	Total/NA	Solid	7471A	
LCDSRM 480-139623/3-A LCD5	Lab Control Sample Dup	Total/NA	Solid	7471A	
LCSSRM 480-139623/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 480-139623/1-A	Method Blank	Total/NA	Solid	7471A	

#### **Prep Batch: 139642**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	3050B	
480-45969-2	WCSS-13-(0-0.25)	Total/NA	Solid	3050B	
480-45969-3	WCSS-14-(0-0.25)	Total/NA	Solid	3050B	
480-45969-4	WCSS-15-(0-0.25)	Total/NA	Solid	3050B	
480-45969-5	WCSS-16-(0-0.25)	Total/NA	Solid	3050B	
480-45969-5 MS	WCSS-16-(0-0.25) MS	Total/NA	Solid	3050B	
480-45969-5 MSD	WCSS-16-(0-0.25) MSD	Total/NA	Solid	3050B	
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	3050B	
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	3050B	
480-45969-8	WCSS-19-(0-0.25)	Total/NA	Solid	3050B	
480-45969-9	WCSS-20-(0-0.25)	Total/NA	Solid	3050B	
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	3050B	
480-45969-11	WCSS-22-(0-0.25)	Total/NA	Solid	3050B	
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	3050B	
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	3050B	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals (Continued)** 

# Prep Batch: 139642 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-14	WCSS-24-(0-0.25)	Total/NA	Solid	3050B	
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	3050B	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	3050B	
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	3050B	
480-45969-18	WCSS-29-(0-0.25)	Total/NA	Solid	3050B	
LCDSRM 480-139642/3-A LCD\$	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-139642/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-139642/1-A	Method Blank	Total/NA	Solid	3050B	

### **Prep Batch: 139644**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-45969-19	WCSS-30-(0-0.25)	Total/NA	Solid	3050B	
480-45969-20	WCSS-31-(0-0.25)	Total/NA	Solid	3050B	
480-45969-21	WCSS-32-(0-0.25)	Total/NA	Solid	3050B	
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	3050B	
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	3050B	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	3050B	
480-45969-25	WCSS-36-(0-0.25)	Total/NA	Solid	3050B	
480-45969-26	WCSS-38-(0-0.25)	Total/NA	Solid	3050B	
480-45969-27	WCSS-39-(0-0.25)	Total/NA	Solid	3050B	
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	3050B	
480-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	3050B	
480-45969-30	WCSS-43-(0-0.25)	Total/NA	Solid	3050B	
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	3050B	
480-45969-32	WCSS-45-(0-0.25)	Total/NA	Solid	3050B	
480-45969-33	WCSS-46-(0-0.25)	Total/NA	Solid	3050B	
480-45969-34	WCSS-47-(0-0.25)	Total/NA	Solid	3050B	
480-45969-34 MS	WCSS-47-(0-0.25) MS	Total/NA	Solid	3050B	
480-45969-34 MSD	WCSS-47-(0-0.25) MSD	Total/NA	Solid	3050B	
480-45969-35	WCSS-48-(0-0.25)	Total/NA	Solid	3050B	
LCDSRM 480-139644/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-139644/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-139644/1-A	Method Blank	Total/NA	Solid	3050B	

#### Analysis Batch: 139797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-2	WCSS-13-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-3	WCSS-14-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-4	WCSS-15-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-5	WCSS-16-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-5 MS	WCSS-16-(0-0.25) MS	Total/NA	Solid	7471A	139623
480-45969-5 MSD	WCSS-16-(0-0.25) MSD	Total/NA	Solid	7471A	139623
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-8	WCSS-19-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-9	WCSS-20-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-11	WCSS-22-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	7471A	139623

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals (Continued)** 

# Analysis Batch: 139797 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-14	WCSS-24-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-18	WCSS-29-(0-0.25)	Total/NA	Solid	7471A	139623
480-45969-19	WCSS-30-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-20	WCSS-31-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-21	WCSS-32-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-25	WCSS-36-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-26	WCSS-38-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-27	WCSS-39-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-30	WCSS-43-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-32	WCSS-45-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-33	WCSS-46-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-34	WCSS-47-(0-0.25)	Total/NA	Solid	7471A	139621
480-45969-34 MS	WCSS-47-(0-0.25) MS	Total/NA	Solid	7471A	139621
480-45969-34 MSD	WCSS-47-(0-0.25) MSD	Total/NA	Solid	7471A	139621
480-45969-35	WCSS-48-(0-0.25)	Total/NA	Solid	7471A	139621
LCDSRM 480-139621/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	139621
LCDSRM 480-139623/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	7471A	139623
LCSSRM 480-139621/2-A	Lab Control Sample	Total/NA	Solid	7471A	139621
LCSSRM 480-139623/2-A	Lab Control Sample	Total/NA	Solid	7471A	139623
MB 480-139621/1-A	Method Blank	Total/NA	Solid	7471A	139621
MB 480-139623/1-A	Method Blank	Total/NA	Solid	7471A	139623

#### Analysis Batch: 139946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-19	WCSS-30-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-20	WCSS-31-(0-0.25)	Total/NA		6010	139644
480-45969-21	WCSS-32-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	6010	139644
30-45969-25 WCSS-36-(0-0.25)		Total/NA	Solid	6010	139644
480-45969-26	WCSS-38-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-27	WCSS-39-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-30	WCSS-43-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-32	WCSS-45-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-33	WCSS-46-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-34	WCSS-47-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-34 MS	WCSS-47-(0-0.25) MS	Total/NA	Solid	6010	139644
480-45969-34 MSD	WCSS-47-(0-0.25) MSD	Total/NA	Solid	6010	139644

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals (Continued)** 

Analysis Batch: 139946 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-35	WCSS-48-(0-0.25)	Total/NA	Solid	6010	139644
LCDSRM 480-139644/3-A LCD\$	Lab Control Sample Dup	Total/NA	Solid	6010	139644
LCSSRM 480-139644/2-A	Lab Control Sample	Total/NA	Solid	6010	139644
MB 480-139644/1-A	Method Blank	Total/NA	Solid	6010	139644

Analysis Batch: 139953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-2	WCSS-13-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-3	WCSS-14-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-4	WCSS-15-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-5	WCSS-16-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-5 MS	WCSS-16-(0-0.25) MS	Total/NA	Solid	6010	139642
480-45969-5 MSD	WCSS-16-(0-0.25) MSD	Total/NA	Solid	6010	139642
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-8	WCSS-19-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-9	WCSS-20-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-11	WCSS-22-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-14	WCSS-24-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-18	WCSS-29-(0-0.25)	Total/NA	Solid	6010	139642
LCDSRM 480-139642/3-A LCDS	Lab Control Sample Dup	Total/NA	Solid	6010	139642
LCSSRM 480-139642/2-A	Lab Control Sample	Total/NA	Solid	6010	139642
MB 480-139642/1-A	Method Blank	Total/NA	Solid	6010	139642

Analysis Batch: 140201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	6010	139642
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	6010	139642

Analysis Batch: 140202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-25	WCSS-36-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	6010	139644
480-45969-33	WCSS-46-(0-0.25)	Total/NA	Solid	6010	139644

**General Chemistry** 

Analysis Batch: 139842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-1	WCSS-11-(0-0.25)	Total/NA	Solid	Moisture	

# **QC Association Summary**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

# **General Chemistry (Continued)**

# Analysis Batch: 139842 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45969-2	WCSS-13-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-3	WCSS-14-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-4	WCSS-15-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-5	WCSS-16-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-5 MS	WCSS-16-(0-0.25) MS	Total/NA	Solid	Moisture	
480-45969-5 MSD	WCSS-16-(0-0.25) MSD	Total/NA	Solid	Moisture	
480-45969-6	WCSS-18-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-7	WCSS-17-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-8	WCSS-19-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-9	WCSS-20-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-10	WCSS-21-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-11	WCSS-22-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-12	WCSS-23-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-13	WCSS-25-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-14	WCSS-24-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-15	WCSS-26-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-16	WCSS-27-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-17	WCSS-28-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-18	WCSS-29-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-19	WCSS-30-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-20	WCSS-31-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-21	WCSS-32-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-22	WCSS-33-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-23	WCSS-34-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-24	WCSS-35-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-25	WCSS-36-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-26	WCSS-38-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-27	WCSS-39-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-28	WCSS-40-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-29	WCSS-41-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-30	WCSS-43-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-31	WCSS-44-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-32	WCSS-45-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-33	WCSS-46-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-34	WCSS-47-(0-0.25)	Total/NA	Solid	Moisture	
480-45969-34 MS	WCSS-47-(0-0.25) MS	Total/NA	Solid	Moisture	
480-45969-34 MSD	WCSS-47-(0-0.25) MSD	Total/NA	Solid	Moisture	
480-45969-35	WCSS-48-(0-0.25)	Total/NA	Solid	Moisture	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-11-(0-0.25)

Date Collected: 09/16/13 12:00 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-1

**Matrix: Solid** Percent Solids: 90.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		5	139797	09/18/13 13:57	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 22:41	LMH	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		2	140201	09/19/13 15:05	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-13-(0-0.25) Lab Sample ID: 480-45969-2

Date Collected: 09/16/13 11:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 87.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		100	139797	09/18/13 13:59	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 22:43	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-14-(0-0.25) Lab Sample ID: 480-45969-3

Date Collected: 09/16/13 11:50 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 89.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		10	139797	09/18/13 14:00	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 22:46	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-15-(0-0.25) Lab Sample ID: 480-45969-4

Date Collected: 09/16/13 11:35 Date Received: 09/18/13 01:30 Percent Solids: 96.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 11:28	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 22:48	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

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**Matrix: Solid** 

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-5

ab Sample ID: 480-45969-5

Matrix: Solid
Percent Solids: 94.0

Client Sample ID: WCSS-16-(0-0.25)

Date Collected: 09/16/13 11:05 Date Received: 09/18/13 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		5	139797	09/18/13 14:02	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 22:50	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-18-(0-0.25)

Lab Sample ID: 480-45969-6

Date Collected: 09/16/13 11:00 Date Received: 09/18/13 01:30 Matrix: Solid
Percent Solids: 91.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		100	139797	09/18/13 14:10	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:06	LMH	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		2	140201	09/19/13 15:07	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-17-(0-0.25)

Lab Sample ID: 480-45969-7

 Date Collected: 09/16/13 12:25
 Matrix: Solid

 Date Received: 09/18/13 01:30
 Percent Solids: 89.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 13:38	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		5	139888	09/19/13 12:24	CMD	TAL BUF
Total/NA	Analysis	MA VPH		5	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 03:59	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 11:43	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:09	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCSS-19-(0-0.25)** 

Lab Sample ID: 480-45969-8

Date Collected: 09/16/13 12:35 Matrix: Solid Date Received: 09/18/13 01:30 Percent Solids: 94.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A	<del></del>		139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 11:45	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:11	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Lab Sample ID: 480-45969-9

Client Sample ID: WCSS-20-(0-0.25) Date Collected: 09/16/13 12:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 88.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		10	139797	09/18/13 14:11	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:13	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-21-(0-0.25) Lab Sample ID: 480-45969-10

Date Collected: 09/16/13 11:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 95.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 14:04	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	139888	09/19/13 16:07	CMD	TAL BUF
Total/NA	Analysis	MA VPH		1	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 04:28	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		5	139797	09/18/13 14:13	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:16	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Client Sample ID: WCSS-22-(0-0.25)

Lab Sample ID: 480-45969-11 Matrix: Solid

Date Collected: 09/16/13 10:45 Date Received: 09/18/13 01:30

Percent Solids: 94.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A	<del></del>	<del></del>	139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		10	139797	09/18/13 14:17	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:18	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Lab Sample ID: 480-45969-12

**Matrix: Solid** 

Percent Solids: 94.7

Client Sample ID: WCSS-23-(0-0.25)

Date Collected: 09/16/13 13:10 Date Received: 09/18/13 01:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139791	09/18/13 14:57	NQN	TAL BUF
Total/NA	Analysis	8260C		1	140106	09/20/13 01:48	LCH	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		10	139631	09/18/13 15:05	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	140681	09/23/13 14:27	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 04:58	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 14:23	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:20	LMH	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		10	140201	09/19/13 15:10	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

**Client Sample ID: WCSS-25-(0-0.25)** 

Date Collected: 09/16/13 13:35 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-13

**Matrix: Solid** Percent Solids: 82.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 14:29	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		5	139888	09/19/13 13:02	CMD	TAL BUF
Total/NA	Analysis	MA VPH		5	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 05:27	DGB	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCSS-25-(0-0.25)** 

Date Collected: 09/16/13 13:35 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-13

**Matrix: Solid** Percent Solids: 82.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A	<del></del>		139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		10	139797	09/18/13 14:25	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:27	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-24-(0-0.25)

Date Collected: 09/16/13 12:55

Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-14 **Matrix: Solid** 

Percent Solids: 89.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 14:27	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:30	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-26-(0-0.25)

Date Collected: 09/16/13 14:55

Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-15

**Matrix: Solid** 

Percent Solids: 94.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139791	09/18/13 14:57	NQN	TAL BUF
Total/NA	Analysis	8260C		2	140106	09/20/13 02:11	LCH	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		5	139888	09/19/13 13:44	CMD	TAL BUF
Total/NA	Analysis	MA VPH		5	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 06:01	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:29	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:32	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-27-(0-0.25)

Date Collected: 09/16/13 14:15

Lab Sample ID: 480-45969-16

**Matrix: Solid** 

Date Received: 09/18/13 01:30 Percent Solids: 87.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139791	09/18/13 14:57	NQN	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-16

Matrix: Solid

Percent Solids: 87.6

Client Sample ID: WCSS-27-(0	J.25)	
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Date Collected: 09/16/13 14:15 Date Received: 09/18/13 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	140106	09/20/13 02:35	LCH	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	139888	09/19/13 16:46	CMD	TAL BUF
Total/NA	Analysis	MA VPH		1	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 06:30	DGB	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:31	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:34	LMH	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		5	140201	09/19/13 15:17	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-28-(0-0.25)

Date Collected: 09/16/13 13:30 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-17

Matrix: Solid Percent Solids: 93.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 14:55	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		10	139631	09/18/13 18:17	CMD	TAL BUF
Total/NA	Analysis	MA VPH		1	140681	09/23/13 14:27	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 07:00	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:33	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:37	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-29-(0-0.25)

Date Collected: 09/16/13 14:15

Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-18

**Matrix: Solid** 

Percent Solids: 92.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139623	09/18/13 08:00	JRK	TAL BUF

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Client Sample ID: WCSS-29-(0-0.25)

Client Sample ID: WCSS-30-(0-0.25)

Date Collected: 09/16/13 14:30

Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-18

Date Collected: 09/16/13 14:15 Date Received: 09/18/13 01:30

**Matrix: Solid** Percent Solids: 92.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		20	139797	09/18/13 12:18	JRK	TAL BUF
Total/NA	Prep	3050B			139642	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139953	09/18/13 23:39	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Lab Sample ID: 480-45969-19

**Matrix: Solid** 

Percent Solids: 92.2

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:35	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/18/13 23:47	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-31-(0-0.25)

Lab Sample ID: 480-45969-20

Date Collected: 09/16/13 10:35 Date Received: 09/18/13 01:30 **Matrix: Solid** 

Percent Solids: 95.1

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:36	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/18/13 23:54	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-32-(0-0.25)

Lab Sample ID: 480-45969-21

Date Collected: 09/16/13 14:45 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 92.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:38	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/18/13 23:56	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

TestAmerica Job ID: 480-45969-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-33-(0-0.25)

Date Collected: 09/16/13 15:20 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-22

Matrix: Solid Percent Solids: 85.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 15:20	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	140221	09/21/13 12:07	LMW	TAL BUF
Total/NA	Analysis	MA VPH		1	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 07:59	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:34	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/18/13 23:59	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-34-(0-0.25)

Date Collected: 09/16/13 15:45 Date Received: 09/18/13 01:30 Lab Sample ID: 480-45969-23

**Matrix: Solid** Percent Solids: 85.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 15:46	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		5	139888	09/19/13 14:22	CMD	TAL BUF
Total/NA	Analysis	MA VPH		5	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 08:29	DGB	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:36	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:01	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-35-(0-0.25)

Date Collected: 09/16/13 15:50

Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-24

**Matrix: Solid** Percent Solids: 92.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139791	09/18/13 14:57	NQN	TAL BUF
Total/NA	Analysis	8260C		1	140106	09/20/13 02:59	LCH	TAL BUF

TestAmerica Buffalo

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TestAmerica Job ID: 480-45969-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-24

Matrix: Solid Percent Solids: 92.6

Date Collected: 09/16/13 15:50 Date Received: 09/18/13 01:30

**Client Sample ID: WCSS-35-(0-0.25)** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139702	09/18/13 08:33	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	140221	09/21/13 12:46	LMW	TAL BUF
Total/NA	Analysis	MA VPH		1	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 08:58	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:40	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:04	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-36-(0-0.25)

Date Collected: 09/16/13 15:05 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-25

**Matrix: Solid** Percent Solids: 92.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:40	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:06	LMH	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		5	140202	09/19/13 15:19	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-38-(0-0.25)

Date Collected: 09/16/13 09:35 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-26 Matrix: Solid Percent Solids: 98.4

_	Batch	Batch	Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:46	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:08	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-45969-27

Matrix: Solid
Percent Solids: 94.4

Client Sample ID: WCSS-39-(0-0.25)

Date Collected: 09/16/13 08:15 Date Received: 09/18/13 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A	<del></del>	<del></del>	139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:47	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:10	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-40-(0-0.25)

Date Collected: 09/16/13 08:35 Date Received: 09/18/13 01:30 Lab Sample ID: 480-45969-28 Matrix: Solid

Percent Solids: 96.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 16:11	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 09:34	CMD	TAL BUF
Total/NA	Analysis	MAVPH		1	140221	09/21/13 13:24	LMW	TAL BUF
Total/NA	Analysis	MA VPH		1	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 09:28	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		5	139797	09/18/13 15:17	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:12	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-41-(0-0.25)

Date Collected: 09/16/13 09:55 Date Received: 09/18/13 01:30

Lab Sampl	e ID: 480-45969-29
	Matrix: Solid
	Percent Solids: 90.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:48	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:15	LMH	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		2	140202	09/19/13 15:21	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

TestAmerica Job ID: 480-45969-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-43-(0-0.25)

Date Collected: 09/16/13 09:45 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-30

**Matrix: Solid** Percent Solids: 98.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A	<del></del>		139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:50	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:22	LMH	TAL BUF

Lab Sample ID: 480-45969-31

TAL BUF

139842 09/18/13 21:57 GTG

**Matrix: Solid** 

Percent Solids: 99.4

Client Sample ID: WCSS-44-(0-0.25)

Analysis

Moisture

Date Collected: 09/16/13 15:25 Date Received: 09/18/13 01:30

Total/NA

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			139957	09/19/13 09:47	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	139971	09/19/13 16:36	CDC	TAL BUF
Total/NA	Prep	5035			139702	09/18/13 09:34	CMD	TAL BUF
Total/NA	Analysis	MAVPH		5	139888	09/19/13 15:29	CMD	TAL BUF
Total/NA	Analysis	MA VPH		5	140681	09/23/13 14:26	GSR	TAL BUF
Total/NA	Prep	3546			139607	09/18/13 05:21	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			139639	09/18/13 08:08	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	139854	09/19/13 09:57	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	140245	09/20/13 10:00	DGB	TAL BUF
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:51	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:24	LMH	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		5	140202	09/19/13 15:24	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-45-(0-0.25)

Date Collected: 09/16/13 09:30 Date Received: 09/18/13 01:30

Lab Sample ID: 480-45969-32	
Matrix: Solid	
Percent Solids: 87.4	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:57	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:27	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

TestAmerica Buffalo

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TestAmerica Job ID: 480-45969-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCSS-46-(0-0.25)

Lab Sample ID: 480-45969-33 Date Collected: 09/16/13 09:10 **Matrix: Solid** 

Date Received: 09/18/13 01:30 Percent Solids: 99.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A	<del></del> -		139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		20	139797	09/18/13 12:58	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:29	LMH	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		2	140202	09/19/13 15:26	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-47-(0-0.25) Lab Sample ID: 480-45969-34

Date Collected: 09/16/13 07:55 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 99.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 14:51	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:31	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: WCSS-48-(0-0.25) Lab Sample ID: 480-45969-35

Date Collected: 09/16/13 07:30 **Matrix: Solid** Date Received: 09/18/13 01:30 Percent Solids: 97.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			139621	09/18/13 08:00	JRK	TAL BUF
Total/NA	Analysis	7471A		1	139797	09/18/13 15:05	JRK	TAL BUF
Total/NA	Prep	3050B			139644	09/18/13 10:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	139946	09/19/13 00:42	LMH	TAL BUF
Total/NA	Analysis	Moisture		1	139842	09/18/13 21:57	GTG	TAL BUF

Client Sample ID: TB-09162013 Lab Sample ID: 480-45969-38

Date Collected: 09/16/13 12:00 **Matrix: Water** 

Date Received: 09/18/13 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	139838	09/19/13 02:13	LCH	TAL BUF

**Laboratory References:** 

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

#### **Laboratory: TestAmerica Buffalo**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	11-06-13
California	NELAP	9	1169CA	10-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	10-01-13
lowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

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# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-45969-1

Method	Method Description	Protocol	Laboratory
3260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
MA VPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MAVPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
1A-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
010	Metals (ICP)	SW846	TAL BUF
471A	Mercury (CVAA)	SW846	TAL BUF
/loisture	Percent Moisture	EPA	TAL BUF

#### **Protocol References:**

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

480-45969-38

TB-09162013

TestAmerica Job ID: 480-45969-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-45969-1	WCSS-11-(0-0.25)	Solid	09/16/13 12:00	09/18/13 01:30
480-45969-2	WCSS-13-(0-0.25)	Solid	09/16/13 11:45	09/18/13 01:30
480-45969-3	WCSS-14-(0-0.25)	Solid	09/16/13 11:50	09/18/13 01:30
480-45969-4	WCSS-15-(0-0.25)	Solid	09/16/13 11:35	09/18/13 01:30
480-45969-5	WCSS-16-(0-0.25)	Solid	09/16/13 11:05	09/18/13 01:30
480-45969-6	WCSS-18-(0-0.25)	Solid	09/16/13 11:00	09/18/13 01:30
480-45969-7	WCSS-17-(0-0.25)	Solid	09/16/13 12:25	09/18/13 01:30
480-45969-8	WCSS-19-(0-0.25)	Solid	09/16/13 12:35	09/18/13 01:30
480-45969-9	WCSS-20-(0-0.25)	Solid	09/16/13 12:45	09/18/13 01:30
480-45969-10	WCSS-21-(0-0.25)	Solid	09/16/13 11:30	09/18/13 01:30
480-45969-11	WCSS-22-(0-0.25)	Solid	09/16/13 10:45	09/18/13 01:30
480-45969-12	WCSS-23-(0-0.25)	Solid	09/16/13 13:10	09/18/13 01:30
480-45969-13	WCSS-25-(0-0.25)	Solid	09/16/13 13:35	09/18/13 01:30
480-45969-14	WCSS-24-(0-0.25)	Solid	09/16/13 12:55	09/18/13 01:30
480-45969-15	WCSS-26-(0-0.25)	Solid	09/16/13 14:55	09/18/13 01:30
480-45969-16	WCSS-27-(0-0.25)	Solid	09/16/13 14:15	09/18/13 01:30
480-45969-17	WCSS-28-(0-0.25)	Solid	09/16/13 13:30	09/18/13 01:30
480-45969-18	WCSS-29-(0-0.25)	Solid	09/16/13 14:15	09/18/13 01:30
480-45969-19	WCSS-30-(0-0.25)	Solid	09/16/13 14:30	09/18/13 01:30
480-45969-20	WCSS-31-(0-0.25)	Solid	09/16/13 10:35	09/18/13 01:30
480-45969-21	WCSS-32-(0-0.25)	Solid	09/16/13 14:45	09/18/13 01:30
480-45969-22	WCSS-33-(0-0.25)	Solid	09/16/13 15:20	09/18/13 01:30
480-45969-23	WCSS-34-(0-0.25)	Solid	09/16/13 15:45	09/18/13 01:30
480-45969-24	WCSS-35-(0-0.25)	Solid	09/16/13 15:50	09/18/13 01:30
480-45969-25	WCSS-36-(0-0.25)	Solid	09/16/13 15:05	09/18/13 01:30
480-45969-26	WCSS-38-(0-0.25)	Solid	09/16/13 09:35	09/18/13 01:30
480-45969-27	WCSS-39-(0-0.25)	Solid	09/16/13 08:15	09/18/13 01:30
480-45969-28	WCSS-40-(0-0.25)	Solid	09/16/13 08:35	09/18/13 01:30
480-45969-29	WCSS-41-(0-0.25)	Solid	09/16/13 09:55	09/18/13 01:30
480-45969-30	WCSS-43-(0-0.25)	Solid	09/16/13 09:45	09/18/13 01:30
480-45969-31	WCSS-44-(0-0.25)	Solid	09/16/13 15:25	09/18/13 01:30
480-45969-32	WCSS-45-(0-0.25)	Solid	09/16/13 09:30	09/18/13 01:30
480-45969-33	WCSS-46-(0-0.25)	Solid	09/16/13 09:10	09/18/13 01:30
480-45969-34	WCSS-47-(0-0.25)	Solid	09/16/13 07:55	09/18/13 01:30
480-45969-35	WCSS-48-(0-0.25)	Solid	09/16/13 07:30	09/18/13 01:30

Water

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09/16/13 12:00 09/18/13 01:30

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10/14/2013

Temperature on Receipt

Drinking Water? Yes□ No \





THE LEADER IN EN

TAL-4124 (1007)															48	30-45	5969 C	Chain	of Cus	tody					
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Providence RI 0290	73	And				$\perp$	1300	CKy	1	lasc	<u> </u>	उँ	7	7//		A	s need			$\dashv$					
Project Name and Location (State)		Carrier/V	Vaybill	Numb	er !								1/12	ar B	\M										
Contract/Purchase Order/Quote No.	14	L										1	30 6			Metal					SI	pecial	'Insti	uctions/	
Contract/Purchase Order/Quote No.				Matri	ix			Conta					7	X 4	2	2					Cc	nditic	ns oi	Receipt	
			<u> </u>	777				Prese		_			-	73	4	7									
Sample I.D. No. and Description	nte	Time	Air Aqueous	Ġ.	ıja	Unpres	H2SO4	HNO3	,	NaOH ZnAc/	5,3	77	5	7	南	$ \tilde{\zeta}_j $									
(Containers for each sample may be combined on one line)			4 400	Sed.	Soil	5	1 2	1	7	N 1/2	2 2	Æ	2	3 5	14	<u>-</u>	$\perp$		6	$\leftarrow$					
WESS-11-10.25-0-15\ 9/16	13		+	-	X	$\dashv X$	-	_	+	+	+-	X	$\times$	+	$\vdash$	XL	$\perp$		(ES	X	-Fo	ctic	not.	only for	- 1/DI
13000 17 (0.75 0.75)					.,				$\top$		$\top$			$\top$		<u> </u>			Ø						
1 h (S) - 13 (C. 25 - C. 13)		_	+	+	<b>X</b>	_	$\vdash$	_	$\mp$	$\mp$	+-	$\uparrow$	$\stackrel{A}{\vdash}$		17	$\overline{}$	$\dashv$			<del>-   ^</del>	· 7C	LPC	un	lysis in	aylz
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													V			V			-@	5 6	1 ~	11 - 1	2 (	act the	
- WS-11-(0.75-10)				$\vdash$				$\mp$	$\mp$		$\mp$			+	H	$\overline{}$			74	<b>≥</b>   t	Fril	15. (	att	act the	PM
WSS-13-(0-0.25)	i	1145			Χ	$\bot X$			$\perp$			X	$\times$							in	site	2 00	lim	nary in	ictal
- LXSS 13- (0.75-10)			$\perp$	-	Х	X		_	4	+	-	X	X	_		X	$\pm$		(F)					CLP an	
WCSS-14-(0-0.25)		1150			X	$\perp$ X							X											on. He	
ixss-15- (0-0.25)		135			X	X							X							<u></u>	TCI	Pa	ura	yses	
1XSS-16- (0-0.ZS)		1105			X	X							X												
LXSS-18-10-025		100			Χ	$\bot$ X						X	X												
wss-17-10-0.25	1	225			X	X					X	$ \chi $	X >		X										
WCSS-A-6-0-25	/	235			X	X					Ť	Χ	X												
Possible Hazard Identification			Sam	ole Dis	sposal							17 -1,					(4)	foo ma	ay be asse	accod	if cam	nlec ar	o rotali	ned	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poiso	n B 💢 .	Unknown		Return	To Clie	ent		Disposa	al By	/ Lab		Archi	ve For			Month	is long	ger tha	an 1 moni	th)	ii sarrij	DIES AIC	e retair	ieu	
Turn Around Time Required				- 1			QC.	Requii	reme	ents (S											te r	ICP S	5-1	Stanolo	.nle
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐	21 Days	Othe	<u> 5</u>	da	45							GI	SKE		d - 0	,,,	Ci	(eu	sites	98:	Fa	-00	+	,	10.5
1. Relinquished By FARA V A. A.		Date ('	113	Tii	me   ( ) _	<i>:</i> :	1. R	eceiy	od B	y (	i .	_	_	7 4	1/2	21				9/1	**************************************	3	. / im	·20	
2. Relinquished By A TAL	_	Pate/ 9//2		- 1	me.		2. R	eceife	d B	· ·	1	=			<del>//</del> 1	<i>,</i> –				Dal	ite		Tim		
11, 1/4		11/7	<u> </u>		60	/ V		/ (				L	$\supset$		<u>/</u>	-	アイレ	_				٤/٠/	_	1150	
3. Relinquished By		Date		77	me		3. R	Receive	ed B	v			`							Dai	te		Tim	е	
Comments																							; ,		
																	3	3. 7	7 3.	1	3.	6 7	71		

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy















Temperature on Receipt



Drinking Water? Yes□ No\ THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)					<del></del>											
Client		Project Manager	_ 1,							Date	9/16/13		Chain of	Custody N	lumber 	
Address		Telephone Number	a He	$\frac{\sqrt{2}}{\sqrt{2}}$						Lab Nu				<u>303</u>	. 6-2	
95 Ceclar St. Ste 100		1 :	•	,		0	1 -	0	100.4.	Lab Nu	mber		D	Z	-4	5
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Code	401-27	5-100 i	Lab Con	vey@	iscocion	$\frac{\mathcal{KCu}}{\mathbf{a}}$	s rain	Ana	lvsis (A	ttach list if		Page _		_ 07 _	
Providence RI	2000	Avelrece	Hevey			2500	t				is needed)	_				
Project Name and Location (State)		Carrier/Waybill No		Lice	7		Sophi	5/2	7	₹ N						
Quincy-Intervale, Quincy,	MS				`		12	140kg/	Ita Dit	T 5				Special I	Instructi	ions/
Chincy-Intervale, Quincy, Contract/Purchase Order/Quote No.	7 (5-4-				Containe	s &	2838	2 3	उ '	الح تعر		1 1	1	Condition		
		M	latrix	/	Preservat	ives	$\sim$	14	<b>√</b> D							
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time 4	Sed.	Unpres. H2SO4	HNO3 HCI	NaOH NaOH MECH	77 783	<b>Z</b> Z	\$	五百						
(XSS-20-(0-075)	9/16/13 1	1245	X	X			X	X					XF	actio	ws or	ily for Vi
WCSS-21-(0-025)	j	1130	X	X		X	X	$\times \lambda$	$\times \rangle$				XTC	LP an	alysi	S may b
WSS-72-(0-0.75)	10	545	X	X			X	X	_	$\perp$						g airelyli
WSS-23-(0-0.25)	1 1 '	310	X	X		X			$\times \rangle$	$\langle    $			1			+ HOW Pr
WCS-25-(0-0-25)	f.	335	X	X		X	X	XX	X X							y metal
- WSS 23- (0.25-0.75)				X			X	X		$\rightarrow$		_				analys
-LXSS 23-(0.75 1.0)			X	X		++	X	X		X		- (5)	des	comir	atia	HOU
WSS-24-(0-0.25)	17	255	X	X		_	X	$\times$				6	TC	LP au	ralys	<b>2</b> \$
0- CXSS-24-(0-25-075)			$\rightarrow \times \vdash$	X			X	X		17		-6				
@-1x56-74 (6.75-1.0)			<del> X </del>	X			X	X		X		-6				
WCSS-26-(0-0.25)	1	445	X	X		Х	X	X X	XX							
WSS-27-(0-0.25)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	415	X _	$ \lambda $			X	X X	$\geq$	$\langle    $						
Possible Hazard Identification	_ ~	, ,	e Disposal	7-					•		(A fee m	ay be asse.	ssed if sa	mples are	retained	
	Poison B	Unknown 🗌 Re	turn To Clier		Disposal B		Archi	ve For _		_ Mont	hs longer th	an 1 month	<i>b)</i>	Hom		<u> </u>
Turn Around Time Required  24 Hours	aua	Other 50	last	00	: Hequirem	ents (Specif	NCA	iu inc	H	cols	require	or, iep	100 m	0 1.0	P 5-:1	Standla
1. Bolingwiched B.		Date	Time		Received B	24	GI	SKey	4	exce	1 fice	with	PDF Date	rcps	Time	
1. Hellinguished by Brund V aug	L1	5/17/15	102	- 1	11) (	,	_	T.7 L	!	)			9/:	1/13	10:0	10
2. Relinquished By	41	9/17/13	Time /60		Receißed B		1				TIL		Date 43-10	F.13	Time Di3	U
3. Relinquished By	,	Date	Time	3. F	Received B	ly			1				Date		Time	
Comments					_											
Commonto											3.7	, 3.1	, 3.	6#1		











Temperature on Receipt \_

**TestAmerica** 

Drinking Water? Ye	es□ No⊠
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THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)				/												
Client	Project Ma	•								Date	1 - 1 -		Chain of	<b>Qustody</b>	Numbe	gr .
Address Address	Telephone	Sind	ica	اص مسلم	<b>'</b>					9	16/13			300 C	730	)
Address	Telephone	Number (	Area Coo	de)/Fax Nu	umber	C) 1				Lab Nui	mber					+
Gity St. Stc 100			1007			work	r.vla	erran.	can				Page _	3	01	<u> </u>
	Site Conta			Lab Col			$\mathcal{F}$				tach list if					
Providence RI 02903		ica Ho		150	CKY 1	Masor			111016	Space	is needed)		$\dashv$			
Project Name and Location (State)	Carrier/Wa	aybill Num	ber /				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	3/		出为						
Guivey-Intervale, Guivey, MA Contract/Purchase Order/Quote No.							1 '	75 75	Ma DE	77				Specia	l Instr	ructions/
Contract/Purchase Order/Quote No.		Mati	riv	1	Containe			78	1 3	7 7			4	Conditio	ons of	Receipt
		- Iviali	<i>'</i>	<del></del>	Preserva		_ `	> =	<i>1</i> ∕ ∨ 1) `	7 PJ						
Sample I.D. No. and Description Date	Time	ieous d.		Unpres. H2SO4	HNO3 HC/	NaOH ZnAc/ NaOH	2 2 E	MCP 1780	EH.	に位						
(Containers for each sample may be combined on one line)	Time	Aqueo Sed.	Soil	5 3	HVC HC	N ZN	5 \t	2	17	1111-		$\perp \perp$				
WSS-28-10-0.25) 9/16/13	1330		$ \chi $	X			$x \mid x$	$X \times$	X				XTO	action	10÷ 1	nly for VPH
<u> </u>						'			ľ			3)				/
- Wiss 28 (0.25 - 0.75)		++		X				X				т і	X 10	11 a	<u>woll</u>	155 may be
- LXSS-78=(0.75-10)			X	X			_X	X	$\vdash$	$\bot$	+	0	1120	rold	Dev	cting airely lice
	10.		X	\ <u></u>				X								
WSS-29-(0-0.25)	1415	++			+	++	$-\!$			++			159	urs.	CM	Hack the Pr
WSS-30-(0-0.25)	1430		X	X			X	X					with	hore	lieniv	vary metals
WSS-31-(0-0.75)	1035		$\langle \rangle$	X				X					1	L. 1	) V	is analysis
, , ,		+ $+$		<del> /                                    </del>			-			+			1000	ACC +	X 11	is avaiged
WSS-32-(0-0.25)	1445		X	X			X	X	$\perp \perp$				de	term'	nat	ion HOLD
WSS-33-(0-0.75)	1570		$ \chi $	$ \chi $			x x	$ \mathbf{x} \mathbf{x}$		$\times$			TO	1 D c		lyses_
	100								/ /	1		<b>(3</b> )	,		uv	yses_
- WSS-33- (0.25-0.75)							X		1			$\sim$				
- 6XSS 33-(0.75-1.0)			<del> X </del> -	$+\times-$	┼-┼-	$\vdash$	$-\times$	x -	+	- X	+++	(3)				
	1545		X	1 1 -			XX	/ \	1/1	X						
10CSS-34-(0-025)	+		1	X		1	$\triangle   \triangle$	XX	X  /	$\rightarrow$	+					
1XSS-35-(0-0.75)	1550		X	X			$X \mid X$	X X	.(XI)	<						
Possible Hazard Identification		Sample D		1.					11 4		(A fee may	he asse	essed if sa	amples a	re retail	ned
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B	Unknown	☐ Retur	n To Clie		Disposal I	•		ive For .			is longer than	1 monti	h)			
Turn Around Time Required	,	- 1		l QC	C Requirer	ments (Spe	ecity) C	AM V	rethe	cels 1	reguired,	re	port	o MI	5P 5	1 Standard
🗌 24 Hours 🔲 48 Hours 🔲 7 Days 🔲 14 Days 🔲 21 Da	nys 🛱 Other	500	ry5								file wi-					
1. Relinquished By	Date /	/. 1	ime		Received	Ву		/					Sate	/ >		<i>e</i>
Brent V. alelen	9/17	113	1020	3	161	·	<u> </u>	- !	TA	4			1///	//3	1	ن لمرز ا
2. Relinquished 4 / A	2911		ime		Received	B//	H	1					Date	/	Tim	
1/1/	1/17		16 C	_		(\	9'	1	الب	<i>'</i>	The			P.13	1	0:10
3. Relinquished By	Date	1	Time	3.	Received	Ву							Date		Tim	re e
Comments											1	3 /		ر عا	.1	
											3.7	5.1	<>.	6 #F	ĺ	











Temperature on Receipt \_

**TestAmerica** 

Drinking Water?	$Yes \square$	No⊠
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THE LEADER IN ENVIRONMENTAL TESTING

	TAL-4124 (1007)																			
	Client	Project Manager Andrea Heve				/								Date 9/16/13				Chain of Custody Number		
	Address Address													Lab No	1/10	// ~		+	_2300	<u>,,/ t.,</u>
	Address  95 Coclar St, Stc 100  City State Zip Code  Froutdence FI	1 lo	one ivui i -フフ	mber (Area C 3 - 1007	ooe)/ra	א א א א איי איי	er D	30000	lan	100	m	1.00	24	Lad No	ımber				age '	
	City State Zip Code	Site Co	ontact	3-1007	/ Lah	Contac	7						Anal	vsis (4	ttach lis	et if			age(	or
	Providence FI			a Heve		Zeck		Mas	~~	1	,				is neea					
	Project Name and Location (State)			Number	/ [ -		7		,	- 3	3			7 4						
										10	100	S		H 5					Special I	nstructions/
	Contract/Purchase Order/Quote No.					Co	ntain	ers &		7 8	1	$\mathcal{Z}$ .	ر افر	3 5						s of Receipt
				Matrix				atives		3	P14	7	10,	YA						,
	Sample I.D. No. and Description (Containers for each sample may be combined on one line)  Date	Time	Air	Sed.	Unpres.	H2SO4	HCI	NaOH ZnAc/	NaOH FCC	RR	MC	3	+\f\(\f\)							
	1255-36-(0-025) 9/16/13	1505		X	Х					Х	X							;	XFraction	sonly for Vi
	/	935		X	X						Х		$\perp$							dysis may !
7	W.SS-39-(0-0.25)	815		X	X		$\perp$				Х								nadal	pending aire
<u>,</u>	WSS-40-(0-0.75)	835			X				X	X	Х	$\times \rangle$	$\langle \ \rangle$						esults.	contact the
3	-DCS-40-(075-075)			X	X		-		_	X	Х	_	+	X			- (		without	minary mot
Down 400 of 400	- WCSS-40-(0.75-10)			X	X		+			X	X	_	+	X		-	8		data fo	TCLPandy
<b>ა</b>	WS5-41-10-0.25	955		X	Х					X	Х								determina	ation. Hai
	UXSS-43-(0-0.75)	945		X	X				$\perp$	X	Х								TCLP a	nalyses
	WES-44-60-0.75)	1525		X	X				X	X	X	$\rangle$	$\langle   \rangle$				$\perp \downarrow$			
	- WCSS-44 (0.25-0.75)			$\perp \mid X \mid$	X		_		+	X	X	_		X			<b>E</b>	2		
	- WSS 44-(0.75-1.0)			$\perp \mid X \mid$	$\rightarrow$			1		$\perp \times$	X	_		X		-	RS			
		930		T X	V						×	$\top$		1					_	
	Possible Hazard Identification	120	San	nple Disposal	<u> </u>															
	☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐	Unknowi	7 🗆	Return To Ci	lient	☐ Dis <sub>i</sub>	oosal	By Lab		Arci	hive F	or		_ Mon	A f ths long	ee may ger than	be ass 1 mon	iesse nth)	ed if samples are	retained
	Turn Around Time Required					QC Re	equire.	ments (											Ato MCP	S-1 Starch
	24 Hours 48 Hours 7 Days 14 Days 21 Days	🕽 Ott	her_5	days						6	\ \_{\}	K-	1 A	Ex	4 كرم	26	107	H	PDFC	S-1 Starch Time
	1. Relinquished By Bront V Migher	Date ?	1-/1	j Time	٠ ح		m		7			7	11	7L			<i>D</i> 07	-6	Daje	Time 16 120
_	2. Relinquished By TA	9//	7/1	Time 17	00	2. Red	ejveo	By	H	7				T.	1_				Date 7. 13	Time 0150
40/44/0040	3. Relingtished By	Date		Time		3. Red	ceivea	By	_	-	_	_						- '	Date	Time
3																				
5	Comments													7	, 2	> i	7	1	111	
														<b>5</b> .		5. 1.	S	0	11	















Temperature on Receipt \_\_\_\_\_

<u>TestAmerica</u>

Drinking Water	? Yes□	Not
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THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)																			
Client			Manage									1	Date	s / /		Chai	in of Custod	ly Number	
- Darland & Curran			Ano	ber (Area Co	tovo	<b>Y</b>							- 9	16/16/1 nber	3		238	331	
Address								_					Lab Nun	nber			_	,	•
Address  15 Coclay St, Stc 100  City State Zipo	<u> </u>	40	1-27	3-100	7, al	1000	246	in	da:	da	wai	1.Com	_			Pag	ge <u> </u>	of _	<u>5</u>
City State Zip of	Code													ach list s neede					
_ Trouteurce KI C	02903	An	dira	Herry		eck,	y	"asc	217	_ 1 3	.1 1	///O/E S	N I	Tiecue		$\dashv$			
Project Name and Location (State)	1.7.1	Carrier	/Waybill i	Number /		,				2)-									
Contract/Purchase Order/Quote No.	ncy, MA									2808	(\$26C)	DZ.	}				,	ial Instructi	
Contract/Purchase Order/Quote No.			,	Matrix			ntaine. serva			(2808)	1.09	\5 \7					Condi	tions of Re	eceipt
	1		9	1   1	9			_	T			4 4	1						
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air Aqueou	Sed.	Unpres.	H2SO4 HNO3	HC	NaOH ZnAc⁄ NaOH		PCBS	3 8	\$ 6							
WSS-46-(0-0.75)	9/16/13	910			X					$  \rangle$									
LXSS-47-(0-0.25)		755			X		Ш												
LXSS-48-(0-0.75)		730		X	X			_								$\perp$			
WSS-47-(0-0.25) MS		755		X	X					X						1	15: Ma	Strix Sp	ike
WCSS-47-(0-0.75) MSD		755		X		_							$\sqcup \bot$	$\perp \downarrow$		11	MSD:	Matrix	Spike D
WSS-918-(0-0.75)		ji00		X	X	$\perp$				X					$\perp \perp$				
WSS-16-(0-0.25)MS		1105		X	X						$\overline{}$								
WCSS-16-(0-0.25) MSD		1105		X	X					>									
WEB-27-60-25)		1425	X	<del>!                                    </del>	X					X									
TB-09/62013	V	1200	Х				X		_		X					$\perp \perp$			
10css-935-(c-0.25)	9/16/13	1550		X	X					X									
	, ,																		
Possible Hazard Identification			Samp	ole Disposal										/4 fo	a may ha s	2000000	l if camplac	are retained	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant	Poison B	M Unknowi	7   🗆 A	Return To Cli	ent [	Disp		,						s longe	er than 1 m	onth)			
Turn Around Time Required  24 Hours 48 Hours 7 Days 14 Da  1. Relinquished By				. 1	۱'	QC Red	quirem	ents (S)	pecify	CAH	1 M	etim	k 12	<b>e</b> uive	el rec	ort t	O MCF	S-1 St.	ondard
24 Hours 48 Hours 7 Days 14 Da	ys 🗌 21 Days	s 🔀 0t1	her_5	day_						GIS	Ke	v F	exce	( Cle	1014	4, PE	of rec	100A	
1. Relinquished By  2. Relinquished By  C  1A	1,	Date C/	17/1	Time //)	30	1. Rece	Aved E	3y -1			-	. , ,	V-C			19	12/13	Time / U	
2. Relinquished By	/	Date /	5/	3 Time	00	2. Rece	elyed E	3y //	1	1		//				, Da	ate	Time	7 11
3. Relinquishe By			7/1	Time		3. Rece	eived E	By		6.7	_	¥	/-	64		, Di	9 .   f .   ate	3 0:5 Time	
Comments														7	つ	2 1	3.6	#/	
															- //	2,	7,0	( '	











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# **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-45969-1

Login Number: 45969 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-47378-1 Client Project/Site: Quincy Inervale

#### For:

Woodard & Curran Inc 95 Cedar St Suite 100 Providence, Rhode Island 02903

Attn: Ms. Andrea Hevey

in Masen

Authorized for release by: 10/16/2013 10:59:23 AM

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

.....LINKS .....

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **GC VOA**

#### Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **GC Semi VOA**

Qualifier	Qualifier Description

В Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Χ Surrogate is outside control limits

#### **Metals**

#### Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

Abbreviation These commonly used abbreviati	ons may or may not be present in this report.
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¤ Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DL, RA, RE, IN

DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin) NC Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown) ND

**PQL Practical Quantitation Limit** 

QC **Quality Control RER** Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TFF TEQ Toxicity Equivalent Quotient (Dioxin)

#### **Case Narrative**

Client: Woodard & Curran Inc TestAmerica Job ID: 480-47378-1
Project/Site: Quincy Inervale

Job ID: 480-47378-1

Laboratory: TestAmerica Buffalo

Narrative

#### Receipt

The samples were received on 10/8/2013 1:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.8° C, 3.0° C and 4.2° C.

#### GC/MS VOA

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 144314 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample.

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-1R (480-47378-13), MW-2R (480-47378-8), MW-3R (480-47378-15), MW-4R (480-47378-17), WCMW-1 (480-47378-12), WCMW-10 (480-47378-2), WCMW-11 (480-47378-10), WCMW-2 (480-47378-5), WCMW-3 (480-47378-16), WCMW-4 (480-47378-11), WCMW-5 (480-47378-3), WCMW-6 (480-47378-1), WCMW-7 (480-47378-6), WCMW-8 (480-47378-9), WCMW-9 (480-47378-4). Elevated reporting limits (RLs) are provided.

With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-dibromo-3-chloropropane, Carbon Disulfide, Isopropyl Ether, Naphthalene, tert-Butyl Ether, tert-Amyl Methyl Ether, & Tetrahydrofuran.

No other analytical or quality issues were noted.

#### GC VOA

Method MAVPH: The following samples were diluted due to the foaming nature of the sample matrix: MW-1R (480-47378-13), MW-2R (480-47378-8), MW-3R (480-47378-15), WCMW-1 (480-47378-12), WCMW-10 (480-47378-2), WCMW-11 (480-47378-10), WCMW-2 (480-47378-5), WCMW-3 (480-47378-16), WCMW-4 (480-47378-11), WCMW-5 (480-47378-3), WCMW-6 (480-47378-1), WCMW-7 (480-47378-6), WCMW-8 (480-47378-9), WCMW-9 (480-47378-4). Elevated reporting limits (RLs) are provided.

Method MAVPH: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-4R (480-47378-17). Elevated reporting limits (RLs) are provided.

At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No other analytical or quality issues were noted.

#### GC Semi VOA

Method MA-EPH: Surrogate recovery 1-Chlorooctadecane for the following samples is outside control limits due to matrix: MW-1R (480-47378-13), MW-3R (480-47378-15), WCMW-1 (480-47378-12), WCMW-3 (480-47378-16), WCMW-4 (480-47378-11).

Method MA-EPH: The continuing calibration verification (CCV) associated with batch 144342 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method MA-EPH: Surrogate recovery 1-Chlorooctadecane for the following sample is outside control limits due to matrix: MW-4R (480-47378-17).

Method MA-EPH: The method blank (MB 480-144324/1-B) contains the small hots in the C ranges above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. Any associated sample positives for these ranges will be flagged with a "B" to indicate such.

Per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol; however they do achieve method 1 GW2/GW3 standards.

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#### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

#### Job ID: 480-47378-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

No other analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### **Organic Prep**

Method 3510C: After hexane exchanging the following samples formed precipitates along the walls of the turbos: MW-3R (480-47378-15), WCMW-11 (480-47378-10), WCMW-2 (480-47378-5), WCMW-5 (480-47378-3), WCMW-8 (480-47378-9), WCMW-9 (480-47378-4).

No other analytical or quality issues were noted.

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		M	assDEP Anal	ytical	Protocol Certif	ication Form			
Labor	atory Name:	TestAı	merica Buffalo		Project #:		480-4737	8-1	
Proje	ect Location:		Quincy		RTN:				
This f	orm provide	s certifications	s for the followin	g data	a set: list Laborato	ry Sample ID Num	nber(s):		
480-4	7378-1[1-15]								
Matric	es: X	Groundwater/S	urface Water		Soil/Sediment	Drinking Water	Air	Oth	er:
		•	t apply below):						
3260		7470/7471 Hg	Mass DEP V		8081 Pesticides	7196 Hex Cr		Mass DEP	APH —
CAM			X CAM IV A	X	CAM V B	CAM VI B		CAM IX A	
3270 : CAM	SVOC	6010 Metals CAM III C	Mass DEP E  X CAM IV B	PH X	8151 Herbicides CAM V C	8330 Explosives CAM VIII A		TO-15 VOO CAM IX B	, _
CAIVI	пь 🗆	CAWIIIC	X CAWITY B	لكا	9014 Total	CAIVI VIII A		CAWIX	
	Metals	6020 Metals	8082 PCB	_	Cyanide/PAC	6860 Perchlorate			
CAM	III A	CAM III D	CAM V A		CAM VI A	CAM VIII B			
	Affirmative	Responses to	Questions A thro	ough l	are required for "	Presumptive Cert	ainty" st	atus	
_	Were all san	nples received in	n a condition con	sistent	with those describe	d on the Chain-of-0	Custody,		
Α		,	g temperature) in	the fie	eld or laboratory, and	d prepared/analyze	d within	V√	□ Na
	method hold		(-)		0	atti a di sa di a a a la ata	-1-0014	X Yes	No
В	Were the an protocol(s) for		s) and all associa	ated Q	C requirements spe	cified in the selecte	d CAM	X Yes	☐ No
С					esponse actions spece standard non-cor		ed CAM	X Yes	□ No
	Does the lab	oratory report c	omply with all the	report	ting requirements sp	ecified in CAM VII	Α,		
D		urance and Qua	ality Control Guide	elines f	or the Acquisition a	nd Reporting of Ana	alytical	<b>▽</b> 1	<b>—</b> I
	Data"?	Land ADLL Mate			المارين المرجعة والمرجعة المرجعة المرجعة			X Yes	□ No
Е					ethod conducted with or a list of significan			X Yes	No
_					e analyte list reporte	· ·	?	Yes	☐ No
F					nce standard non-c				
•					" responses to Que			X Yes	⊔ No
					e required for "Pre	-		S I	
G	Were the reprotocol(s)?	oorting limits at	or below all CAM	report	ing limits specified i	n the selected CAM	1	Yes	X No <sup>1</sup>
					" status may not ned		ata usabil	lity and	
H		•			1056 (2)(k) and WCS			□ v	X No <sup>1</sup>
_					e CAM protocol(s) a			Yes	
l		-			pecified in the selec		s) ?		X No <sup>1</sup>
					d laboratory narrativ				
obtain	ing the inform	nation, the mate			erjury that, based up llytical report is, to t				sible for
is acc	curate and co	mplete.							
Signa	ture:	Ren W	lasen		Position:	Pr	oject Mar	nager	
Printe	d Name:	Ве	cky Mason		Date:	1	0/15/13 1	6:00	
This for	m has been ele	ctronically signed ar	nd approved		-				

TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCMW-6 Lab Sample ID: 480-47378-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.14	J	10.0	1.60	ug/L	10	_	8260C	Total/NA
C5-C8 Aliphatics (adjusted)	27.5	J	50.0	15.0	ug/L	10		MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	27.5	J	50.0	15.0	ug/L	10		MAVPH	Total/NA
Phenanthrene	1.89	J	9.47	1.89	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	25.1	JB	47.4	9.47	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	13.9	JB	47.4	9.47	ug/L	1		MA-EPH	Total/NA
Barium	0.399		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.0296		0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.687		0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00161	. J	0.00500	0.00100	ma/l	1		6010	Dissolved

**Client Sample ID: WCMW-10** Lab Sample ID: 480-47378-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.90	J	10.0	1.60	ug/L		_	8260C	Total/NA
C11-C22 Aromatics (unadjusted)	19.9	JB	47.4	9.48	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	10.3	JB	47.4	9.48	ug/L	1		MA-EPH	Total/NA
Barium	0.351		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00257	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.00431	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00187	J	0.00500	0.00100	mg/L	1		6010	Dissolved

**Client Sample ID: WCMW-5** Lab Sample ID: 480-47378-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	82.4		10.0	7.50	ug/L	10	_	8260C	Total/NA
Methyl tert-butyl ether	7.93	J	10.0	1.60	ug/L	10		8260C	Total/NA
C9-C10 Aromatics	9.38	J	50.0	5.00	ug/L	10		MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	26.8	J	50.0	15.0	ug/L	10		MAVPH	Total/NA
Phenanthrene	2.52	J	9.57	1.91	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	22.8	JB	47.9	9.57	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	19.5	JВ	47.9	9.57	ug/L	1		MA-EPH	Total/NA
Barium	0.396		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00251	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.0107	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00160	J	0.00500	0.00100	mg/L	1		6010	Dissolved

Client Sample ID: WCMW-9 Lab Sample ID: 480-47378-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.60	J	10.0	1.60	ug/L	10	_	8260C	Total/NA
Trichloroethene	5.33	J	10.0	4.60	ug/L	10		8260C	Total/NA
Phenanthrene	1.93	J	9.47	1.89	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	15.9	JВ	47.3	9.47	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	9.61	J	47.3	9.47	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	14.1	JB	47.3	9.47	ug/L	1		MA-EPH	Total/NA
Barium	0.337		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00862	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Arsenic	0.00641	J	0.0100	0.00555	mg/L	1		6010	Dissolved
Zinc	0.0638		0.0500	0.00150	mg/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-6

Lab Sample ID: 480-47378-7

Lab Sample ID: 480-47378-8

Client Sample ID: WCMW-9 (Continued) Lab Sample ID: 480-47378-4

	Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	F	Prep Type
١	Chromium	0.00160	J	0.00500	0.00100	mg/L	1		6010		Dissolved

#### Lab Sample ID: 480-47378-5 Client Sample ID: WCMW-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3-Dichlorobenzene	11.3		10.0	7.80	ug/L	10	_	8260C	Total/NA
Methyl tert-butyl ether	4.08	J	10.0	1.60	ug/L	10		8260C	Total/NA
C9-C10 Aromatics	10.0	J	50.0	5.00	ug/L	10		MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	11.9	JB	47.5	9.49	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	19.6	J	47.5	9.49	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	17.6	JB	47.5	9.49	ug/L	1		MA-EPH	Total/NA
Barium	0.152		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00358	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Arsenic	0.00774	J	0.0100	0.00555	mg/L	1		6010	Dissolved
Zinc	0.0226	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00163	J	0.00500	0.00100	mg/L	1		6010	Dissolved

## Client Sample ID: WCMW-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	86.0		5.00	4.05	ug/L	5	_	8260C	Total/NA
Trichloroethene	23.9		5.00	2.30	ug/L	5		8260C	Total/NA
C11-C22 Aromatics (unadjusted)	16.7	JB	47.3	9.47	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	16.5	J	47.3	9.47	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	11.9	JB	47.3	9.47	ug/L	1		MA-EPH	Total/NA
Barium	0.420		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00376	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.0130	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00176	J	0.00500	0.00100	mg/L	1		6010	Dissolved

## Client Sample ID: WCMW-907

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	15.4	JB	47.3	9.45	ug/L	1	_	MA-EPH	Total/NA
C9-C18 Aliphatics	12.9	JB	47.3	9.45	ug/L	1		MA-EPH	Total/NA
Barium	0.417		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00138	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.00736	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00181	J	0.00500	0.00100	mg/L	1		6010	Dissolved

### **Client Sample ID: MW-2R**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	8.64	J	9.52	1.90	ug/L	1	_	MA-EPH	Total/NA
Fluoranthene	2.34	J	9.52	1.90	ug/L	1		MA-EPH	Total/NA
Fluorene	6.92	J	9.52	1.90	ug/L	1		MA-EPH	Total/NA
Naphthalene	3.16	J	9.52	1.90	ug/L	1		MA-EPH	Total/NA
Phenanthrene	11.3		9.52	1.90	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	77.0	В	47.6	9.52	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	13.2	JB	47.6	9.52	ug/L	1		MA-EPH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Client Sample ID: MW-2R (Continued)

Lab Sample ID: 480-47378-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.248		0.0100	0.000700	mg/L	1	_	6010	Dissolved
Nickel	0.00335	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.00270	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00131	J	0.00500	0.00100	mg/L	1		6010	Dissolved

**Client Sample ID: WCMW-8** 

Lab Sample ID: 480-47378-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	19.3	JB	47.4	9.49	ug/L	1	_	MA-EPH	Total/NA
Barium	0.335		0.0100	0.000700	mg/L	1		6010	Dissolved
Zinc	0.00301	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00133	J	0.00500	0.00100	mg/L	1		6010	Dissolved

Client Sample ID: WCMW-11

Lab Sample ID: 480-47378-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	16.0	J B	55.2	11.0	ug/L	1	_	MA-EPH	Total/NA
C19-C36 Aliphatics	15.8	J	55.2	11.0	ug/L	1		MA-EPH	Total/NA
Barium	0.160		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00389	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Arsenic	0.00563	J	0.0100	0.00555	mg/L	1		6010	Dissolved
Zinc	0.0132	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00172	J	0.00500	0.00100	mg/L	1		6010	Dissolved

Client Sample ID: WCMW-4

Client Sample ID: WCMW-1

Lab Sample ID: 480-47378-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	12.1	JB	47.5	9.50	ug/L	1	_	MA-EPH	Total/NA
C19-C36 Aliphatics	11.4	J	47.5	9.50	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	10.8	JB	47.5	9.50	ug/L	1		MA-EPH	Total/NA
Barium	0.0754		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00225	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.00350	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00126	J	0.00500	0.00100	mg/L	1		6010	Dissolved

Lab Sample ID: 480-47378-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C9-C10 Aromatics	24.7	J	50.0	5.00	ug/L	10	_	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	18.4	J	50.0	15.0	ug/L	10		MAVPH	Total/NA
Acenaphthene	4.94	J	9.54	1.91	ug/L	1		MA-EPH	Total/NA
Fluorene	3.78	J	9.54	1.91	ug/L	1		MA-EPH	Total/NA
Naphthalene	3.30	J	9.54	1.91	ug/L	1		MA-EPH	Total/NA
Phenanthrene	5.83	J	9.54	1.91	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	42.8	JВ	47.7	9.54	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	109	В	47.7	9.54	ug/L	1		MA-EPH	Total/NA
Barium	0.0789		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00652	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.00426	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00117	J	0.00500	0.00100	mg/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Client Sample ID: MW-1R

Lab Sample	e ID:	480-4	7378-13
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	12.7	JB	48.0	9.59	ug/L	1	_	MA-EPH	Total/NA
C19-C36 Aliphatics	24.3	J	48.0	9.59	ug/L	1		MA-EPH	Total/NA
Barium	0.157		0.0100	0.000700	mg/L	1		6010	Dissolved
Vanadium	0.00159	J	0.0100	0.00150	mg/L	1		6010	Dissolved
Zinc	0.00171	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00146	J	0.00500	0.00100	mg/L	1		6010	Dissolved

## Client Sample ID: TB-10032013

#### Lab Sample ID: 480-47378-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10.5	J	50.0	3.00	ug/L	1	_	8260C	 Total/NA
Tetrahydrofuran	8.26	J	10.0	1.25	ug/L	1		8260C	Total/NA

# Client Sample ID: MW-3R

## Lab Sample ID: 480-47378-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac I	) Method	Prep Type
cis-1,2-Dichloroethene	11.7		10.0	8.10	ug/L	10	8260C	Total/NA
Tetrachloroethene	10.4		10.0	3.60	ug/L	10	8260C	Total/NA
Trichloroethene	9.70	J	10.0	4.60	ug/L	10	8260C	Total/NA
C11-C22 Aromatics (unadjusted)	16.2	JВ	47.6	9.52	ug/L	1	MA-EPH	Total/NA
C9-C18 Aliphatics	21.5	JB	47.6	9.52	ug/L	1	MA-EPH	Total/NA
Cadmium	0.000720	J	0.00100	0.000500	mg/L	1	6010	Dissolved
Barium	0.146		0.0100	0.000700	mg/L	1	6010	Dissolved
Nickel	0.00721	J	0.0100	0.00126	mg/L	1	6010	Dissolved
Arsenic	0.00609	J	0.0100	0.00555	mg/L	1	6010	Dissolved
Zinc	0.112		0.0500	0.00150	mg/L	1	6010	Dissolved
Chromium	0.00123	J	0.00500	0.00100	mg/L	1	6010	Dissolved

#### **Client Sample ID: WCMW-3**

## Lab Sample ID: 480-47378-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.60	J	10.0	1.60	ug/L	10	_	8260C	Total/NA
Vinyl chloride	11.4		10.0	9.00	ug/L	10		8260C	Total/NA
Phenanthrene	2.94	J	9.75	1.95	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	20.4	JВ	48.8	9.75	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	15.3	J	48.8	9.75	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	10.8	JB	48.8	9.75	ug/L	1		MA-EPH	Total/NA
Barium	0.0463		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00160	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Arsenic	0.00573	J	0.0100	0.00555	mg/L	1		6010	Dissolved
Zinc	0.00514	J	0.0500	0.00150	mg/L	1		6010	Dissolved

# Client Sample ID: MW-4R

#### Lab Sample ID: 480-47378-17

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Analyte	Result (	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	35.7		10.0	1.60	ug/L	10	_	8260C	Total/NA
Naphthalene	56.0		50.0	4.30	ug/L	10		8260C	Total/NA
Tert-amyl methyl ether	7.92	J	50.0	2.70	ug/L	10		8260C	Total/NA
C9-C10 Aromatics	99.0		50.0	5.00	ug/L	10		MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	65.9		50.0	15.0	ug/L	10		MAVPH	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

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# **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-47378-1

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Client Sample ID: MW-4R (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	27.1		9.55	1.91	ug/L	1	_	MA-EPH	Total/NA
Acenaphthene	98.3		9.55	1.91	ug/L	1		MA-EPH	Total/NA
Fluoranthene	3.88	J	9.55	1.91	ug/L	1		MA-EPH	Total/NA
Fluorene	43.4		9.55	1.91	ug/L	1		MA-EPH	Total/NA
Naphthalene	26.4		9.55	1.91	ug/L	1		MA-EPH	Total/NA
Phenanthrene	47.1		9.55	1.91	ug/L	1		MA-EPH	Total/NA
Pyrene	2.05	J	9.55	1.91	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	561	В	47.7	9.55	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	84.5	В	47.7	9.55	ug/L	1		MA-EPH	Total/NA
Barium	0.396		0.0100	0.000700	mg/L	1		6010	Dissolved
Nickel	0.00230	J	0.0100	0.00126	mg/L	1		6010	Dissolved
Zinc	0.00256	J	0.0500	0.00150	mg/L	1		6010	Dissolved
Chromium	0.00130	J	0.00500	0.00100	mg/L	1		6010	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	313		50.0	50.0	ug/L	1	_	MA-EPH	Total/NA

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-1

**Matrix: Water** 

**Client Sample ID: WCMW-6** 

Method: 8260C - Volatile Orga Analyte
1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-Chloropropane
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
1,4-Dioxane
2,2-Dichloropropane
2-Butanone (MEK)
2-Chlorotoluene

Analyte	Result Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50	ug/L			10/11/13 17:37	•
1,1,1-Trichloroethane	<10.0	10.0	8.20	ug/L			10/11/13 17:37	•
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L			10/11/13 17:37	•
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 17:37	
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L			10/11/13 17:37	
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L			10/11/13 17:37	
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L			10/11/13 17:37	
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 17:37	•
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L			10/11/13 17:37	
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 17:37	
1,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 17:37	
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L			10/11/13 17:37	
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L			10/11/13 17:37	
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L			10/11/13 17:37	
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L			10/11/13 17:37	
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L			10/11/13 17:37	
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L			10/11/13 17:37	
1,3-Dichloropropane	<10.0	10.0	7.50	ug/L			10/11/13 17:37	
,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L			10/11/13 17:37	
,4-Dioxane	<500	500		ug/L			10/11/13 17:37	
,,2-Dichloropropane	<10.0	10.0		ug/L			10/11/13 17:37	
-Butanone (MEK)	<100 *	100		ug/L			10/11/13 17:37	
-Chlorotoluene	<10.0	10.0		ug/L			10/11/13 17:37	
-Hexanone	<100	100		ug/L			10/11/13 17:37	
-Chlorotoluene	<10.0	10.0		ug/L			10/11/13 17:37	
-Isopropyltoluene	<10.0	10.0		ug/L			10/11/13 17:37	
-Methyl-2-pentanone (MIBK)	<100	100		ug/L			10/11/13 17:37	
Acetone	<500	500		ug/L			10/11/13 17:37	
Benzene	<10.0	10.0		ug/L			10/11/13 17:37	
Bromobenzene	<10.0	10.0		ug/L			10/11/13 17:37	
Bromoform	<10.0	10.0		ug/L			10/11/13 17:37	
Bromomethane	<20.0	20.0		ug/L			10/11/13 17:37	
Carbon disulfide	<100	100		ug/L			10/11/13 17:37	
Carbon tetrachloride	<10.0	10.0		ug/L			10/11/13 17:37	
Chlorobenzene	<10.0	10.0		ug/L			10/11/13 17:37	
Chlorobromomethane	<10.0	10.0		ug/L			10/11/13 17:37	
Chlorodibromomethane	<5.00	5.00		ug/L ug/L			10/11/13 17:37	
Chloroethane	<20.0	20.0		ug/L			10/11/13 17:37	
Chloroform	<10.0	10.0		ug/L			10/11/13 17:37	
Chloromethane	<20.0	20.0		ug/L ug/L			10/11/13 17:37	
is-1,2-Dichloroethene	<10.0	10.0		ug/L			10/11/13 17:37	
is-1,3-Dichloropropene	<4.00	4.00		ug/L ug/L			10/11/13 17:37	
Dichlorobromomethane	<5.00	5.00		ug/L ug/L			10/11/13 17:37	
Dichlorodifluoromethane	<10.0	10.0		ug/L ug/L			10/11/13 17:37	
	<10.0			_				
thyl ether		10.0		ug/L			10/11/13 17:37	
Ethylbenzene	<10.0	10.0		ug/L			10/11/13 17:37	
Ethylene Dibromide	<10.0	10.0		ug/L			10/11/13 17:37	
lexachlorobutadiene sopropyl ether	<4.00 <100	4.00		ug/L ug/L			10/11/13 17:37 10/11/13 17:37	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-1

**Client Sample ID: WCMW-6** 

Date Collected: 10/03/13 08:42 Matrix: Water Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<10.0		10.0	7.90	ug/L			10/11/13 17:37	10
Methyl tert-butyl ether	2.14	J	10.0	1.60	ug/L			10/11/13 17:37	10
Methylene Chloride	<10.0		10.0	4.40	ug/L			10/11/13 17:37	10
m-Xylene & p-Xylene	<20.0		20.0	6.60	ug/L			10/11/13 17:37	10
Naphthalene	<50.0		50.0	4.30	ug/L			10/11/13 17:37	10
n-Butylbenzene	<10.0		10.0	6.40	ug/L			10/11/13 17:37	10
N-Propylbenzene	<10.0		10.0	6.90	ug/L			10/11/13 17:37	10
o-Xylene	<10.0		10.0	7.60	ug/L			10/11/13 17:37	10
sec-Butylbenzene	<10.0		10.0	7.50	ug/L			10/11/13 17:37	10
Styrene	<10.0		10.0	7.30	ug/L			10/11/13 17:37	10
Tert-amyl methyl ether	<50.0		50.0	2.70	ug/L			10/11/13 17:37	10
Tert-butyl ethyl ether	<50.0		50.0	2.94	ug/L			10/11/13 17:37	10
tert-Butylbenzene	<10.0		10.0	8.10	ug/L			10/11/13 17:37	10
Tetrachloroethene	<10.0		10.0	3.60	ug/L			10/11/13 17:37	10
Tetrahydrofuran	<100		100	12.5	ug/L			10/11/13 17:37	10
Toluene	<10.0		10.0	5.10	ug/L			10/11/13 17:37	10
trans-1,2-Dichloroethene	<10.0		10.0	9.00	ug/L			10/11/13 17:37	10
trans-1,3-Dichloropropene	<4.00		4.00	3.70	ug/L			10/11/13 17:37	10
Trichloroethene	<10.0		10.0	4.60	ug/L			10/11/13 17:37	10
Trichlorofluoromethane	<10.0		10.0	8.80	ug/L			10/11/13 17:37	10
Vinyl chloride	<10.0		10.0	9.00	ug/L			10/11/13 17:37	10
Dibromomethane	<10.0		10.0	4.10	ug/L			10/11/13 17:37	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130			-		10/11/13 17:37	10
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					10/11/13 17:37	10
4-Bromofluorobenzene (Surr)	105		70 - 130					10/11/13 17:37	10

١	Wethod: WA VPH - Wassachusetts -	volatile Per	roleum Hyd	rocarbons (G	(L)					
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	C5-C8 Aliphatics (adjusted)	27.5	J	50.0	15.0	ug/L			10/09/13 16:39	10
	C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

s - Volatile Pet	roleum Hyd	rocarbons (GC	)					
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
27.5	J	50.0	15.0	ug/L			10/08/13 11:15	10
<50.0		50.0	5.00	ug/L			10/08/13 11:15	10
<50.0		50.0	15.0	ug/L			10/08/13 11:15	10
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
95		70 - 130			-		10/08/13 11:15	10
98		70 - 130					10/08/13 11:15	10
	Result   27.5   <50.0   <50.0     %Recovery   95	Result   Qualifier	Result 27.5         Qualifier 3         RL 50.0           <50.0	Result 27.5         Qualifier         RL 50.0         MDL 15.0           <50.0	Result 27.5         Qualifier J         RL 50.0         MDL ug/L ug/L ug/L ug/L ug/L ug/L           <50.0	Result 27.5         Qualifier         RL 50.0         MDL ug/L ug/L ug/L           <50.0	Result 27.5         Qualifier J         RL 50.0         MDL ug/L ug/L ug/L         Unit ug/L ug/L         D vg/L         Prepared           <50.0	27.5 J       50.0       15.0 ug/L       10/08/13 11:15         <50.0

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Acenaphthene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Acenaphthylene (TSP)	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Anthracene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Benzo[a]anthracene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Benzo[a]pyrene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1

TestAmerica Buffalo

10/16/2013

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

**Client Sample ID: WCMW-6** 

Date Collected: 10/03/13 08:42 Date Received: 10/08/13 01:25 Lab Sample ID: 480-47378-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Benzo[g,h,i]perylene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Benzo[k]fluoranthene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Chrysene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Dibenz(a,h)anthracene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Fluoranthene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Fluorene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Indeno[1,2,3-cd]pyrene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Naphthalene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Phenanthrene	1.89	J	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
Pyrene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 16:29	1
C11-C22 Aromatics (unadjusted)	25.1	JB	47.4	9.47	ug/L		10/11/13 11:32	10/12/13 16:29	1
C19-C36 Aliphatics	<47.4		47.4	9.47	ug/L		10/11/13 11:32	10/12/13 16:29	1
C9-C18 Aliphatics	13.9	JB	47.4	9.47	ug/L		10/11/13 11:32	10/12/13 16:29	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	45		40 - 140				10/11/13 11:32	10/12/13 16:29	1
2-Bromonaphthalene	84		40 - 140				10/11/13 11:32	10/12/13 16:29	1
2-Fluorobiphenyl	98		40 - 140				10/11/13 11:32	10/12/13 16:29	1
o-Terphenyl	71		40 - 140				10/11/13 11:32	10/12/13 16:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/10/13 20:20	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/10/13 20:20	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/10/13 20:20	1
Barium	0.399		0.0100	0.000700	mg/L		10/08/13 08:10	10/10/13 20:20	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/10/13 20:20	1
Nickel	0.0296		0.0100	0.00126	mg/L		10/08/13 08:10	10/10/13 20:20	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/10/13 20:20	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/10/13 20:20	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/10/13 20:20	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/10/13 20:20	1
Zinc	0.687		0.0500	0.00150	mg/L		10/08/13 08:10	10/10/13 20:20	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/10/13 20:20	1
Chromium	0.00161	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/10/13 20:20	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:16	1

Lab Sample ID: 480-47378-2 **Client Sample ID: WCMW-10** Matrix: Water

Date Collected: 10/03/13 09:45 Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic (	Compounds (	GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0		10.0	3.50	ug/L			10/11/13 18:02	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-2

Matrix: Water

Client Sample ID: WCMW-10

Date Collected: 10/03/13 09:45 Date Received: 10/08/13 01:25

Analyte	ic Compounds (GC/MS) (Co Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<10.0 <b>Qualifier</b>	10.0	8.20			Trepureu	10/11/13 18:02	10
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10				10/11/13 18:02	10
1,1,2-Trichloroethane	<10.0	10.0	2.30				10/11/13 18:02	10
1,1-Dichloroethane	<10.0	10.0	3.80				10/11/13 18:02	10
1,1-Dichloroethene	<10.0	10.0	2.90				10/11/13 18:02	10
1,1-Dichloropropene	<10.0	10.0	7.20				10/11/13 18:02	10
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	-			10/11/13 18:02	10
1,2,3-Trichloropropane	<10.0	10.0	8.90				10/11/13 18:02	10
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	<del>.</del>			10/11/13 18:02	10
1,2,4-Trimethylbenzene	<10.0	10.0	7.50				10/11/13 18:02	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	-			10/11/13 18:02	10
1,2-Dichlorobenzene	<10.0	10.0		ug/L			10/11/13 18:02	10
1,2-Dichloroethane	<10.0	10.0	2.10	-			10/11/13 18:02	10
1,2-Dichloropropane	<10.0	10.0	7.20				10/11/13 18:02	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70				10/11/13 18:02	10
1,3-Dichlorobenzene	<10.0	10.0	7.80				10/11/13 18:02	10
1,3-Dichloropropane	<10.0	10.0	7.50				10/11/13 18:02	10
1,4-Dichlorobenzene	<10.0	10.0	8.40	<del>.</del>			10/11/13 18:02	10
1,4-Dioxane	<500	500	93.2				10/11/13 18:02	10
2,2-Dichloropropane	<10.0	10.0	4.00				10/11/13 18:02	10
2-Butanone (MEK)	<100 *	100	13.2	-			10/11/13 18:02	10
2-Chlorotoluene	<10.0	10.0	8.60				10/11/13 18:02	10
2-Hexanone	<10.0	100	12.4				10/11/13 18:02	10
4-Chlorotoluene	<10.0	10.0	8.40	<del>.</del>			10/11/13 18:02	10
4-Isopropyltoluene	<10.0	10.0	3.10				10/11/13 18:02	10
4-Methyl-2-pentanone (MIBK)	<10.0	100	21.0	-			10/11/13 18:02	10
Acetone (MIDIX)	<500	500	30.0	<del>.</del>			10/11/13 18:02	10
Benzene	<10.0	10.0	4.10				10/11/13 18:02	10
Bromobenzene	<10.0	10.0	8.00				10/11/13 18:02	10
Bromoform	<10.0	10.0	2.60				10/11/13 18:02	10
Bromomethane	<20.0	20.0	6.90				10/11/13 18:02	10
Carbon disulfide	<100	100						10
			1.90				10/11/13 18:02	
Carbon tetrachloride	<10.0	10.0 10.0	2.70	-			10/11/13 18:02	10
Chlorobenzene Chlorobromomethane	<10.0 <10.0	10.0	7.50 8.70	-			10/11/13 18:02 10/11/13 18:02	10 10
Chlorodibromomethane Chloroethane	<5.00	5.00	3.20	-			10/11/13 18:02	10
Chloroform	<20.0	20.0	3.20				10/11/13 18:02	10
	<10.0	10.0		ug/L			10/11/13 18:02	10
Chloromethane	<20.0	20.0	3.50	-			10/11/13 18:02	10
cis-1,2-Dichloroethene	<10.0	10.0		ug/L			10/11/13 18:02	10
cis-1,3-Dichloropropene	<4.00	4.00		ug/L			10/11/13 18:02	10
Dichlorobromomethane  Dichlorodifluoromethane	<5.00	5.00	3.90	-			10/11/13 18:02	10
Dichlorodifluoromethane  Ethyl other	<10.0	10.0	6.80	•			10/11/13 18:02	10
Ethyl ether	<10.0	10.0	7.20				10/11/13 18:02	10
Ethylbenzene  Ethylana Dibramida	<10.0	10.0	7.40	-			10/11/13 18:02	10
Ethylene Dibromide	<10.0	10.0		ug/L			10/11/13 18:02	10
Hexachlorobutadiene	<4.00	4.00		ug/L			10/11/13 18:02	10
Isopropyl ether	<100	100	5.90	ug/L			10/11/13 18:02	10

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-2

Matrix: Water

**Client Sample ID: WCMW-10** Date Collected: 10/03/13 09:45

Date Received: 10/08/13 01:25

Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	2.90 J	10.0	1.60	ug/L			10/11/13 18:02	10
Methylene Chloride	<10.0	10.0	4.40	ug/L			10/11/13 18:02	10
m-Xylene & p-Xylene	<20.0	20.0	6.60	ug/L			10/11/13 18:02	10
Naphthalene	<50.0	50.0	4.30	ug/L			10/11/13 18:02	10
n-Butylbenzene	<10.0	10.0	6.40	ug/L			10/11/13 18:02	10
N-Propylbenzene	<10.0	10.0	6.90	ug/L			10/11/13 18:02	10
o-Xylene	<10.0	10.0	7.60	ug/L			10/11/13 18:02	10
sec-Butylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 18:02	10
Styrene	<10.0	10.0	7.30	ug/L			10/11/13 18:02	10
Tert-amyl methyl ether	<50.0	50.0	2.70	ug/L			10/11/13 18:02	10
Tert-butyl ethyl ether	<50.0	50.0	2.94	ug/L			10/11/13 18:02	10
tert-Butylbenzene	<10.0	10.0	8.10	ug/L			10/11/13 18:02	10
Tetrachloroethene	<10.0	10.0	3.60	ug/L			10/11/13 18:02	10
Tetrahydrofuran	<100	100	12.5	ug/L			10/11/13 18:02	10
Toluene	<10.0	10.0	5.10	ug/L			10/11/13 18:02	10
trans-1,2-Dichloroethene	<10.0	10.0	9.00	ug/L			10/11/13 18:02	10
trans-1,3-Dichloropropene	<4.00	4.00	3.70	ug/L			10/11/13 18:02	10
Trichloroethene	<10.0	10.0	4.60	ug/L			10/11/13 18:02	10
Trichlorofluoromethane	<10.0	10.0	8.80	ug/L			10/11/13 18:02	10
Vinyl chloride	<10.0	10.0	9.00	ug/L			10/11/13 18:02	10
Dibromomethane	<10.0	10.0	4.10	ug/L			10/11/13 18:02	10
Surrogate	%Recovery Q	ualifier Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92	70 - 130			-		10/11/13 18:02	10
1,2-Dichloroethane-d4 (Surr)	94	70 - 130					10/11/13 18:02	10
4-Bromofluorobenzene (Surr)	104	70 - 130					10/11/13 18:02	10

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)												
Analyte	Result Qualif	ifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
C5-C8 Aliphatics (adjusted)	<50.0	50.0	15.0	ug/L			10/09/13 17:39	10				
C9-C12 Aliphatics (adjusted)	<50.0	50.0	15.0	ug/L			10/09/13 17:39	10				

Method: MAVPH - Massachusetts	<ul> <li>Volatile Pet</li> </ul>	roleum Hyd	rocarbons (GC)	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 11:53	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 11:53	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 11:53	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	96		70 - 130			-		10/08/13 11:53	10
2,5-Dibromotoluene (pid)	97		70 - 130					10/08/13 11:53	10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.48	9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Acenaphthene	<9.48	9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Acenaphthylene (TSP)	<9.48	9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Anthracene	<9.48	9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Benzo[a]anthracene	<9.48	9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Benzo[a]pyrene	<9.48	9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Benzo[b]fluoranthene	<9.48	9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

**Client Sample ID: WCMW-10** 

Date Collected: 10/03/13 09:45 Date Received: 10/08/13 01:25 Lab Sample ID: 480-47378-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Benzo[k]fluoranthene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Chrysene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Dibenz(a,h)anthracene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Fluoranthene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Fluorene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Indeno[1,2,3-cd]pyrene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Naphthalene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Phenanthrene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
Pyrene	<9.48		9.48	1.90	ug/L		10/11/13 11:32	10/12/13 16:59	1
C11-C22 Aromatics (unadjusted)	19.9	JB	47.4	9.48	ug/L		10/11/13 11:32	10/12/13 16:59	1
C19-C36 Aliphatics	<47.4		47.4	9.48	ug/L		10/11/13 11:32	10/12/13 16:59	1
C9-C18 Aliphatics	10.3	J B	47.4	9.48	ug/L		10/11/13 11:32	10/12/13 16:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	41		40 - 140				10/11/13 11:32	10/12/13 16:59	1
2-Bromonaphthalene	89		40 - 140				10/11/13 11:32	10/12/13 16:59	1
2-Fluorobiphenyl	101		40 - 140				10/11/13 11:32	10/12/13 16:59	1
o-Terphenyl	66		40 - 140				10/11/13 11:32	10/12/13 16:59	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 19:52	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 19:52	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 19:52	1
Barium	0.351		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 19:52	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 19:52	1
Nickel	0.00257	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 19:52	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 19:52	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 19:52	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 19:52	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 19:52	1
Zinc	0.00431	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 19:52	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 19:52	1
Chromium	0.00187	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 19:52	1

Method. 1410A - Mercury (OVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:18	1

Lab Sample ID: 480-47378-3 **Client Sample ID: WCMW-5** Date Collected: 10/03/13 10:42 **Matrix: Water** 

Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic Compounds (GC/MS)											
	Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac			
	1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50 ug/L			10/11/13 18:27	10			
	1,1,1-Trichloroethane	<10.0	10.0	8.20 ug/L			10/11/13 18:27	10			

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-3

Matrix: Water

**Client Sample ID: WCMW-5** 

Date Collected: 10/03/13 10:42 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL		D P	repared	Analyzed	Dil Fa
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L			10/11/13 18:27	1
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 18:27	10
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L			10/11/13 18:27	10
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L			10/11/13 18:27	10
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L			10/11/13 18:27	10
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 18:27	10
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L			10/11/13 18:27	10
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 18:27	10
1,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 18:27	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L			10/11/13 18:27	10
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L			10/11/13 18:27	10
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L			10/11/13 18:27	10
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L			10/11/13 18:27	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L			10/11/13 18:27	10
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L			10/11/13 18:27	10
1,3-Dichloropropane	<10.0	10.0	7.50	ug/L			10/11/13 18:27	10
1,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L			10/11/13 18:27	10
1,4-Dioxane	<500	500	93.2				10/11/13 18:27	10
2,2-Dichloropropane	<10.0	10.0	4.00	-			10/11/13 18:27	10
2-Butanone (MEK)	<100 *	100	13.2				10/11/13 18:27	10
2-Chlorotoluene	<10.0	10.0	8.60	_			10/11/13 18:27	10
2-Hexanone	<100	100	12.4	-			10/11/13 18:27	10
4-Chlorotoluene	<10.0	10.0	8.40				10/11/13 18:27	10
4-Isopropyltoluene	<10.0	10.0	3.10				10/11/13 18:27	10
4-Methyl-2-pentanone (MIBK)	<100	100	21.0				10/11/13 18:27	10
Acetone	<500	500	30.0				10/11/13 18:27	10
Benzene	<10.0	10.0	4.10				10/11/13 18:27	10
Bromobenzene	<10.0	10.0	8.00	_			10/11/13 18:27	10
Bromoform	<10.0	10.0	2.60				10/11/13 18:27	10
Bromomethane	<20.0	20.0	6.90				10/11/13 18:27	10
Carbon disulfide	<100	100	1.90				10/11/13 18:27	10
Carbon tetrachloride	<10.0	10.0	2.70				10/11/13 18:27	10
Chlorobenzene	82.4	10.0	7.50	-			10/11/13 18:27	10
Chlorobromomethane	<10.0	10.0	8.70	-			10/11/13 18:27	10
Chlorodibromomethane	<5.00	5.00	3.20				10/11/13 18:27	 1(
Chloroethane	<20.0	20.0	3.20				10/11/13 18:27	10
Chloroform	<10.0	10.0	3.40	_			10/11/13 18:27	10
Chloromethane	<20.0	20.0	3.50				10/11/13 18:27	
cis-1,2-Dichloroethene	<10.0	10.0	8.10	_			10/11/13 18:27	10
cis-1,3-Dichloropropene	<4.00	4.00	3.60	-			10/11/13 18:27	10
Dichlorobromomethane Dichlorodifluoromethane	<5.00 <10.0	5.00 10.0	3.90 6.80	_			10/11/13 18:27 10/11/13 18:27	10
				_				10
Ethylhonzono	<10.0	10.0	7.20				10/11/13 18:27	1(
Ethylbenzene	<10.0	10.0	7.40				10/11/13 18:27	10
Ethylene Dibromide	<10.0	10.0	7.30				10/11/13 18:27	10
Hexachlorobutadiene	<4.00	4.00	2.80				10/11/13 18:27	1(
Isopropyl ether	<100	100	5.90	_			10/11/13 18:27	10
Isopropylbenzene	<10.0	10.0	7.90	_			10/11/13 18:27	10
Methyl tert-butyl ether	7.93 J	10.0	1.60	ug/L			10/11/13 18:27	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-5** 

Date Collected: 10/03/13 10:42

Date Received: 10/08/13 01:25

Toluene-d8 (Surr)

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

2,5-Dibromotoluene (pid)

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-3

10/11/13 18:27

10/11/13 18:27

10/11/13 18:27

10/08/13 12:32

Matrix: Water

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	<10.0	10.0	4.40	ug/L			10/11/13 18:27	10
m-Xylene & p-Xylene	<20.0	20.0	6.60	ug/L			10/11/13 18:27	10
Naphthalene	<50.0	50.0	4.30	ug/L			10/11/13 18:27	10
n-Butylbenzene	<10.0	10.0	6.40	ug/L			10/11/13 18:27	10
N-Propylbenzene	<10.0	10.0	6.90	ug/L			10/11/13 18:27	10
o-Xylene	<10.0	10.0	7.60	ug/L			10/11/13 18:27	10
sec-Butylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 18:27	10
Styrene	<10.0	10.0	7.30	ug/L			10/11/13 18:27	10
Tert-amyl methyl ether	<50.0	50.0	2.70	ug/L			10/11/13 18:27	10
Tert-butyl ethyl ether	<50.0	50.0	2.94	ug/L			10/11/13 18:27	10
tert-Butylbenzene	<10.0	10.0	8.10	ug/L			10/11/13 18:27	10
Tetrachloroethene	<10.0	10.0	3.60	ug/L			10/11/13 18:27	10
Tetrahydrofuran	<100	100	12.5	ug/L			10/11/13 18:27	10
Toluene	<10.0	10.0	5.10	ug/L			10/11/13 18:27	10
trans-1,2-Dichloroethene	<10.0	10.0	9.00	ug/L			10/11/13 18:27	10
trans-1,3-Dichloropropene	<4.00	4.00	3.70	ug/L			10/11/13 18:27	10
Trichloroethene	<10.0	10.0	4.60	ug/L			10/11/13 18:27	10
Trichlorofluoromethane	<10.0	10.0	8.80	ug/L			10/11/13 18:27	10
Vinyl chloride	<10.0	10.0	9.00	ug/L			10/11/13 18:27	10
Dibromomethane	<10.0	10.0	4.10	ug/L			10/11/13 18:27	10
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

70 - 130

70 - 130

70 - 130

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Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 12:32	10
C9-C10 Aromatics	9.38	J	50.0	5.00	ug/L			10/08/13 12:32	10
C9-C12 Aliphatics (unadjusted)	26.8	J	50.0	15.0	ug/L			10/08/13 12:32	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	94		70 - 130			_		10/08/13 12:32	10

70 - 130

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Acenaphthene	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Acenaphthylene (TSP)	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Anthracene	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Benzo[a]anthracene	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Benzo[a]pyrene	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Benzo[b]fluoranthene	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Benzo[g,h,i]perylene	<9.57	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-5** 

Date Collected: 10/03/13 10:42

Date Received: 10/08/13 01:25

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-3

Matrix: Water

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Chrysene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Dibenz(a,h)anthracene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Fluoranthene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Fluorene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Indeno[1,2,3-cd]pyrene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Naphthalene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Phenanthrene	2.52	J	9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
Pyrene	<9.57		9.57	1.91	ug/L		10/11/13 11:32	10/12/13 17:29	1
C11-C22 Aromatics (unadjusted)	22.8	JB	47.9	9.57	ug/L		10/11/13 11:32	10/12/13 17:29	1
C19-C36 Aliphatics	<47.9		47.9	9.57	ug/L		10/11/13 11:32	10/12/13 17:29	1
C9-C18 Aliphatics	19.5	JB	47.9	9.57	ug/L		10/11/13 11:32	10/12/13 17:29	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	48	40 - 140	10/11/13 11:32	10/12/13 17:29	1
2-Bromonaphthalene	85	40 - 140	10/11/13 11:32	10/12/13 17:29	1
2-Fluorobiphenyl	101	40 - 140	10/11/13 11:32	10/12/13 17:29	1
o-Terphenyl	83	40 - 140	10/11/13 11:32	10/12/13 17:29	1

Method:	<b>6010 - Metals</b>	(ICP)	- Dissolved

Analyte Resi	ılt Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium <0.0010	00	0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 19:54	1
Antimony <0.006	00	0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 19:54	1
Beryllium <0.0010	00	0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 19:54	1
Barium 0.3	16	0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 19:54	1
Thallium <0.010	00	0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 19:54	1
Nickel 0.002	1 J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 19:54	1
Vanadium <0.010	00	0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 19:54	1
Silver <0.0050	00	0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 19:54	1
Arsenic <0.010	00	0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 19:54	1
Lead <0.0050	00	0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 19:54	1
Zinc 0.010	17 J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 19:54	1
Selenium <0.010	00	0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 19:54	1
Chromium 0.0010	0 J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 19:54	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:20	1

Client Sample ID: WCMW-9
Date Collected: 10/03/13 10:58

Lab Sample ID: 480-47378-4
Matrix: Water

Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic	Compounds (GC/MS)					
Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50 ug/L	<u> </u>	10/11/13 18:52	10
1,1,1-Trichloroethane	<10.0	10.0	8.20 ug/L		10/11/13 18:52	10
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10 ug/L		10/11/13 18:52	10

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-4

Matrix: Water

Client Sample ID: WCMW-9

Date Collected: 10/03/13 10:58 Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organ Analyte	Result Q		MDL	Unit	D Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<10.0	10.0		ug/L		10/11/13 18:52	10
1,1-Dichloroethane	<10.0	10.0		ug/L		10/11/13 18:52	10
1,1-Dichloroethene	<10.0	10.0		ug/L		10/11/13 18:52	10
1,1-Dichloropropene	<10.0	10.0		ug/L		10/11/13 18:52	10
1,2,3-Trichlorobenzene	<10.0	10.0		ug/L		10/11/13 18:52	10
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L		10/11/13 18:52	10
1,2,4-Trichlorobenzene	<10.0	10.0		ug/L		10/11/13 18:52	10
1,2,4-Trimethylbenzene	<10.0	10.0		ug/L		10/11/13 18:52	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L		10/11/13 18:52	10
1,2-Dichlorobenzene	<10.0	10.0		ug/L		10/11/13 18:52	10
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L		10/11/13 18:52	10
1,2-Dichloropropane	<10.0	10.0		ug/L		10/11/13 18:52	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L		10/11/13 18:52	10
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L		10/11/13 18:52	10
1,3-Dichloropropane	<10.0	10.0		ug/L		10/11/13 18:52	10
1,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L		10/11/13 18:52	10
1,4-Dioxane	<500	500		ug/L		10/11/13 18:52	10
2,2-Dichloropropane	<10.0	10.0	4.00	ug/L		10/11/13 18:52	10
2-Butanone (MEK)	<100 *	100	13.2	ug/L		10/11/13 18:52	10
2-Chlorotoluene	<10.0	10.0		ug/L		10/11/13 18:52	10
2-Hexanone	<100	100		ug/L		10/11/13 18:52	10
4-Chlorotoluene	<10.0	10.0		ug/L		10/11/13 18:52	10
4-Isopropyltoluene	<10.0	10.0		ug/L		10/11/13 18:52	10
4-Methyl-2-pentanone (MIBK)	<100	100		ug/L		10/11/13 18:52	10
Acetone	<500	500	30.0	ug/L		10/11/13 18:52	10
Benzene	<10.0	10.0		ug/L		10/11/13 18:52	10
Bromobenzene	<10.0	10.0		ug/L		10/11/13 18:52	10
Bromoform	<10.0	10.0	2.60	ug/L		10/11/13 18:52	10
Bromomethane	<20.0	20.0		ug/L		10/11/13 18:52	10
Carbon disulfide	<100	100		ug/L		10/11/13 18:52	10
Carbon tetrachloride	<10.0	10.0	2.70	ug/L		10/11/13 18:52	10
Chlorobenzene	<10.0	10.0	7.50	ug/L		10/11/13 18:52	10
Chlorobromomethane	<10.0	10.0	8.70	ug/L		10/11/13 18:52	10
Chlorodibromomethane	<5.00	5.00	3.20	ug/L		10/11/13 18:52	10
Chloroethane	<20.0	20.0	3.20	ug/L		10/11/13 18:52	10
Chloroform	<10.0	10.0	3.40	ug/L		10/11/13 18:52	10
Chloromethane	<20.0	20.0	3.50	ug/L		10/11/13 18:52	10
cis-1,2-Dichloroethene	<10.0	10.0	8.10	ug/L		10/11/13 18:52	10
cis-1,3-Dichloropropene	<4.00	4.00	3.60	ug/L		10/11/13 18:52	10
Dichlorobromomethane	<5.00	5.00	3.90	ug/L		10/11/13 18:52	10
Dichlorodifluoromethane	<10.0	10.0	6.80	ug/L		10/11/13 18:52	10
Ethyl ether	<10.0	10.0	7.20	ug/L		10/11/13 18:52	10
Ethylbenzene	<10.0	10.0	7.40	ug/L		10/11/13 18:52	10
Ethylene Dibromide	<10.0	10.0	7.30	ug/L		10/11/13 18:52	10
Hexachlorobutadiene	<4.00	4.00	2.80	ug/L		10/11/13 18:52	10
Isopropyl ether	<100	100		ug/L		10/11/13 18:52	10
Isopropylbenzene	<10.0	10.0		ug/L		10/11/13 18:52	10
Methyl tert-butyl ether	3.60 J	10.0	1.60	ug/L		10/11/13 18:52	10
Methylene Chloride	<10.0	10.0	4.40	ug/L		10/11/13 18:52	10

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-9** 

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-4

Matrix: Water

Date Collected: 10/03/13 10:58 Date Received: 10/08/13 01:25

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<20.0		20.0	6.60	ug/L			10/11/13 18:52	10
Naphthalene	<50.0		50.0	4.30	ug/L			10/11/13 18:52	10
n-Butylbenzene	<10.0		10.0	6.40	ug/L			10/11/13 18:52	10
N-Propylbenzene	<10.0		10.0	6.90	ug/L			10/11/13 18:52	10
o-Xylene	<10.0		10.0	7.60	ug/L			10/11/13 18:52	10
sec-Butylbenzene	<10.0		10.0	7.50	ug/L			10/11/13 18:52	10
Styrene	<10.0		10.0	7.30	ug/L			10/11/13 18:52	10
Tert-amyl methyl ether	<50.0		50.0	2.70	ug/L			10/11/13 18:52	10
Tert-butyl ethyl ether	<50.0		50.0	2.94	ug/L			10/11/13 18:52	10
tert-Butylbenzene	<10.0		10.0	8.10	ug/L			10/11/13 18:52	10
Tetrachloroethene	<10.0		10.0	3.60	ug/L			10/11/13 18:52	10
Tetrahydrofuran	<100		100	12.5	ug/L			10/11/13 18:52	10
Toluene	<10.0		10.0	5.10	ug/L			10/11/13 18:52	10
trans-1,2-Dichloroethene	<10.0		10.0	9.00	ug/L			10/11/13 18:52	10
trans-1,3-Dichloropropene	<4.00		4.00	3.70	ug/L			10/11/13 18:52	10
Trichloroethene	5.33	J	10.0	4.60	ug/L			10/11/13 18:52	10
Trichlorofluoromethane	<10.0		10.0	8.80	ug/L			10/11/13 18:52	10
Vinyl chloride	<10.0		10.0	9.00	ug/L			10/11/13 18:52	10
Dibromomethane	<10.0		10.0	4.10	ug/L			10/11/13 18:52	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130			-		10/11/13 18:52	10
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					10/11/13 18:52	10
4-Bromofluorobenzene (Surr)	106		70 - 130					10/11/13 18:52	10

Method: MA VPH - Massachusetts	- Volatile Pet	troleum Hydr	ocarbons (GC)	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 13:10	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 13:10	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 13:10	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	95		70 - 130					10/08/13 13:10	10
2,5-Dibromotoluene (pid)	98		70 - 130					10/08/13 13:10	10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Acenaphthene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Acenaphthylene (TSP)	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Anthracene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Benzo[a]anthracene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Benzo[a]pyrene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Benzo[b]fluoranthene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Benzo[g,h,i]perylene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Benzo[k]fluoranthene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Client Sample ID: WCMW-9

Lab Sample ID: 480-47378-4

Matrix: Water

Date Collected: 10/03/13 10:58 Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<9.47	·	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Dibenz(a,h)anthracene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Fluoranthene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Fluorene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Indeno[1,2,3-cd]pyrene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Naphthalene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Phenanthrene	1.93	J	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
Pyrene	<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 17:58	1
C11-C22 Aromatics (unadjusted)	15.9	J B	47.3	9.47	ug/L		10/11/13 11:32	10/12/13 17:58	1
C19-C36 Aliphatics	9.61	J	47.3	9.47	ug/L		10/11/13 11:32	10/12/13 17:58	1
C9-C18 Aliphatics	14.1	J B	47.3	9.47	ug/L		10/11/13 11:32	10/12/13 17:58	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	35	X	40 - 140				10/11/13 11:32	10/12/13 17:58	1
2-Bromonaphthalene	83		40 - 140				10/11/13 11:32	10/12/13 17:58	1
2-Fluorobiphenyl	101		40 - 140				10/11/13 11:32	10/12/13 17:58	1
o-Terphenyl	51		40 - 140				10/11/13 11:32	10/12/13 17:58	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 19:57	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 19:57	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 19:57	1
Barium	0.337		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 19:57	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 19:57	1
Nickel	0.00862	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 19:57	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 19:57	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 19:57	1
Arsenic	0.00641	J	0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 19:57	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 19:57	1
Zinc	0.0638		0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 19:57	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 19:57	1
Chromium	0.00160	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 19:57	1

— Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:21	1

**Client Sample ID: WCMW-2** Lab Sample ID: 480-47378-5 Date Collected: 10/03/13 11:42 Matrix: Water Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organ	Method: 8260C - Volatile Organic Compounds (GC/MS)								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50	ug/L			10/11/13 19:17	10	
1,1,1-Trichloroethane	<10.0	10.0	8.20	ug/L			10/11/13 19:17	10	
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L			10/11/13 19:17	10	
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 19:17	10	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-5

Matrix: Water

Client Sample ID: WCMW-2

Date Collected: 10/03/13 11:42 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L		10/11/13 19:17	10
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L		10/11/13 19:17	10
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L		10/11/13 19:17	10
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L		10/11/13 19:17	10
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L		10/11/13 19:17	10
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L		10/11/13 19:17	10
1,2,4-Trimethylbenzene	<10.0	10.0	7.50			10/11/13 19:17	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L		10/11/13 19:17	10
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L		10/11/13 19:17	10
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L		10/11/13 19:17	10
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L		10/11/13 19:17	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L		10/11/13 19:17	10
1,3-Dichlorobenzene	11.3	10.0	7.80	ug/L		10/11/13 19:17	10
1,3-Dichloropropane	<10.0	10.0	7.50	•		10/11/13 19:17	10
1,4-Dichlorobenzene	<10.0	10.0		ug/L		10/11/13 19:17	10
1,4-Dioxane	<500	500	93.2	-		10/11/13 19:17	10
2,2-Dichloropropane	<10.0	10.0	4.00			10/11/13 19:17	10
2-Butanone (MEK)	<100 *	100	13.2			10/11/13 19:17	10
2-Chlorotoluene	<10.0	10.0	8.60			10/11/13 19:17	10
2-Hexanone	<100	100		ug/L		10/11/13 19:17	10
4-Chlorotoluene	<10.0	10.0		ug/L		10/11/13 19:17	10
4-Isopropyltoluene	<10.0	10.0		ug/L		10/11/13 19:17	10
4-Methyl-2-pentanone (MIBK)	<100	100		ug/L		10/11/13 19:17	10
Acetone	<500	500		ug/L		10/11/13 19:17	10
Benzene	<10.0	10.0	4.10			10/11/13 19:17	10
Bromobenzene	<10.0	10.0	8.00	-		10/11/13 19:17	10
Bromoform	<10.0	10.0		ug/L		10/11/13 19:17	10
Bromomethane	<20.0	20.0	6.90	-		10/11/13 19:17	10
Carbon disulfide	<100	100		ug/L		10/11/13 19:17	10
Carbon tetrachloride	<10.0	10.0	2.70			10/11/13 19:17	10
Chlorobenzene	<10.0	10.0	7.50			10/11/13 19:17	10
Chlorobromomethane	<10.0	10.0	8.70	-		10/11/13 19:17	10
Chlorodibromomethane	<5.00	5.00		ug/L		10/11/13 19:17	10
Chloroethane	<20.0	20.0		ug/L		10/11/13 19:17	10
Chloroform	<10.0	10.0		ug/L		10/11/13 19:17	10
Chloromethane	<20.0	20.0		ug/L		10/11/13 19:17	10
cis-1,2-Dichloroethene	<10.0	10.0		ug/L		10/11/13 19:17	10
cis-1,3-Dichloropropene	<4.00	4.00		ug/L		10/11/13 19:17	10
Dichlorobromomethane	<5.00	5.00		ug/L		10/11/13 19:17	10
Dichlorodifluoromethane	<10.0	10.0		ug/L		10/11/13 19:17	10
Ethyl ether	<10.0	10.0		ug/L		10/11/13 19:17	10
Ethylbenzene	<10.0	10.0		ug/L ug/L		10/11/13 19:17	10
Ethylene Dibromide	<10.0	10.0		ug/L		10/11/13 19:17	10
Etriyierie Dibromide Hexachlorobutadiene	<4.00	4.00		ug/L ug/L			10
						10/11/13 19:17	
Isopropyl ether	<100	100		ug/L		10/11/13 19:17	10
Isopropylbenzene	<10.0	10.0		ug/L		10/11/13 19:17	10
Methyl tert-butyl ether	4.08 J	10.0		ug/L		10/11/13 19:17	10
Methylene Chloride	<10.0	10.0	4 40	ug/L		10/11/13 19:17	10

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-2** 

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-5

Matrix: Water

Date Collected: 10/03/13 11:42 Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<50.0		50.0	4.30	ug/L			10/11/13 19:17	10
n-Butylbenzene	<10.0		10.0	6.40	ug/L			10/11/13 19:17	10
N-Propylbenzene	<10.0		10.0	6.90	ug/L			10/11/13 19:17	10
o-Xylene	<10.0		10.0	7.60	ug/L			10/11/13 19:17	10
sec-Butylbenzene	<10.0		10.0	7.50	ug/L			10/11/13 19:17	10
Styrene	<10.0		10.0	7.30	ug/L			10/11/13 19:17	10
Tert-amyl methyl ether	<50.0		50.0	2.70	ug/L			10/11/13 19:17	10
Tert-butyl ethyl ether	<50.0		50.0	2.94	ug/L			10/11/13 19:17	10
tert-Butylbenzene	<10.0		10.0	8.10	ug/L			10/11/13 19:17	10
Tetrachloroethene	<10.0		10.0	3.60	ug/L			10/11/13 19:17	10
Tetrahydrofuran	<100		100	12.5	ug/L			10/11/13 19:17	10
Toluene	<10.0		10.0	5.10	ug/L			10/11/13 19:17	10
trans-1,2-Dichloroethene	<10.0		10.0	9.00	ug/L			10/11/13 19:17	10
trans-1,3-Dichloropropene	<4.00		4.00	3.70	ug/L			10/11/13 19:17	10
Trichloroethene	<10.0		10.0	4.60	ug/L			10/11/13 19:17	10
Trichlorofluoromethane	<10.0		10.0	8.80	ug/L			10/11/13 19:17	10
Vinyl chloride	<10.0		10.0	9.00	ug/L			10/11/13 19:17	10
Dibromomethane	<10.0		10.0	4.10	ug/L			10/11/13 19:17	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		70 - 130			-		10/11/13 19:17	10
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					10/11/13 19:17	10
4-Bromofluorobenzene (Surr)	104		70 - 130					10/11/13 19:17	10

Method: MA VPH - Massachusetts	- Volatile Pet	roleum Hydr	ocarbons (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

Method: MAVPH - Massachusett	s - Volatile Pet	roleum Hyd	rocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 13:51	10
C9-C10 Aromatics	10.0	J	50.0	5.00	ug/L			10/08/13 13:51	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 13:51	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	95		70 - 130			-		10/08/13 13:51	10
2,5-Dibromotoluene (pid)	96		70 - 130					10/08/13 13:51	10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Acenaphthene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Acenaphthylene (TSP)	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Anthracene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Benzo[a]anthracene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Benzo[a]pyrene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Benzo[b]fluoranthene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Benzo[g,h,i]perylene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Benzo[k]fluoranthene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Chrysene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1

TestAmerica Buffalo

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TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCMW-2

Lab Sample ID: 480-47378-5 Date Collected: 10/03/13 11:42

Matrix: Water Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Fluoranthene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Fluorene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Indeno[1,2,3-cd]pyrene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Naphthalene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Phenanthrene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
Pyrene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 18:28	1
C11-C22 Aromatics (unadjusted)	11.9	JB	47.5	9.49	ug/L		10/11/13 11:32	10/12/13 18:28	1
C19-C36 Aliphatics	19.6	J	47.5	9.49	ug/L		10/11/13 11:32	10/12/13 18:28	1
C9-C18 Aliphatics	17.6	JB	47.5	9.49	ug/L		10/11/13 11:32	10/12/13 18:28	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane		X	40 - 140				10/11/13 11:32	10/12/13 18:28	1
2-Bromonaphthalene	87		40 - 140				10/11/13 11:32	10/12/13 18:28	1
2-Fluorobiphenyl	103		40 - 140				10/11/13 11:32	10/12/13 18:28	1
o-Terphenyl	54		40 - 140				10/11/13 11:32	10/12/13 18:28	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:00	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:00	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:00	1
Barium	0.152		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:00	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:00	1
Nickel	0.00358	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:00	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:00	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:00	1
Arsenic	0.00774	J	0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:00	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:00	1
Zinc	0.0226	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:00	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:00	1
Chromium	0.00163	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:00	1

 Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:27	1

Client Sample ID: WCMW-7 Lab Sample ID: 480-47378-6 Date Collected: 10/03/13 12:17 **Matrix: Water** 

Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organ									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<5.00		5.00	1.75	ug/L			10/11/13 19:43	5
1,1,1-Trichloroethane	<5.00		5.00	4.10	ug/L			10/11/13 19:43	5
1,1,2,2-Tetrachloroethane	<2.50		2.50	1.05	ug/L			10/11/13 19:43	5
1,1,2-Trichloroethane	<5.00		5.00	1.15	ug/L			10/11/13 19:43	5
1,1-Dichloroethane	<5.00		5.00	1.90	ug/L			10/11/13 19:43	5

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-6

Matrix: Water

Client Sample ID: WCMW-7

Date Collected: 10/03/13 12:17 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL		Unit	D	Prepared	Analyzed	Dil F
1,1-Dichloroethene	<5.00	5.00	1.45	ug/L			10/11/13 19:43	
1,1-Dichloropropene	<5.00	5.00	3.60	ug/L			10/11/13 19:43	
1,2,3-Trichlorobenzene	<5.00	5.00	2.05	ug/L			10/11/13 19:43	
1,2,3-Trichloropropane	<5.00	5.00	4.45	ug/L			10/11/13 19:43	
1,2,4-Trichlorobenzene	<5.00	5.00	2.05	ug/L			10/11/13 19:43	
1,2,4-Trimethylbenzene	<5.00	5.00	3.75	ug/L			10/11/13 19:43	
1,2-Dibromo-3-Chloropropane	<25.0	25.0	1.95	ug/L			10/11/13 19:43	
1,2-Dichlorobenzene	<5.00	5.00	3.95	ug/L			10/11/13 19:43	
1,2-Dichloroethane	<5.00	5.00	1.05	ug/L			10/11/13 19:43	
1,2-Dichloropropane	<5.00	5.00	3.60	ug/L			10/11/13 19:43	
1,3,5-Trimethylbenzene	<5.00	5.00	3.85	ug/L			10/11/13 19:43	
1,3-Dichlorobenzene	<5.00	5.00	3.90	ug/L			10/11/13 19:43	
1,3-Dichloropropane	<5.00	5.00	3.75	ug/L			10/11/13 19:43	
1,4-Dichlorobenzene	<5.00	5.00	4.20	ug/L			10/11/13 19:43	
1,4-Dioxane	<250	250	46.6	-			10/11/13 19:43	
2,2-Dichloropropane	<5.00	5.00	2.00				10/11/13 19:43	
2-Butanone (MEK)	<50.0 *	50.0	6.60				10/11/13 19:43	
2-Chlorotoluene	<5.00	5.00	4.30				10/11/13 19:43	
2-Hexanone	<50.0	50.0	6.20				10/11/13 19:43	
4-Chlorotoluene	<5.00	5.00	4.20				10/11/13 19:43	
I-Isopropyltoluene	<5.00	5.00	1.55	-			10/11/13 19:43	
I-Methyl-2-pentanone (MIBK)	<50.0	50.0	10.5	_			10/11/13 19:43	
Acetone	<250	250	15.0				10/11/13 19:43	
Benzene	<5.00	5.00	2.05				10/11/13 19:43	
Bromobenzene	<5.00	5.00	4.00	-			10/11/13 19:43	
Bromoform	<5.00	5.00	1.30				10/11/13 19:43	
3romomethane	<10.0	10.0	3.45	-			10/11/13 19:43	
Carbon disulfide	<50.0	50.0	0.950	_			10/11/13 19:43	
Carbon tetrachloride	<5.00	5.00	1.35				10/11/13 19:43	
Chlorobenzene	<5.00	5.00	3.75	_			10/11/13 19:43	
Chlorobromomethane	<5.00	5.00	4.35	-			10/11/13 19:43	
Chlorodibromomethane	<2.50	2.50	1.60				10/11/13 19:43	
Chloroethane	<10.0	10.0	1.60	-			10/11/13 19:43	
Chloroform	<5.00	5.00	1.70	-			10/11/13 19:43	
Chloromethane	<10.0	10.0	1.75				10/11/13 19:43	
cis-1,2-Dichloroethene	86.0	5.00	4.05	-			10/11/13 19:43	
sis-1,3-Dichloropropene	<2.00	2.00	1.80				10/11/13 19:43	
Dichlorobromomethane	<2.50	2.50		ug/L			10/11/13 19:43	
Dichlorodifluoromethane	<5.00	5.00	3.40				10/11/13 19:43	
Ethyl ether	<5.00	5.00		ug/L ug/L			10/11/13 19:43	
Ethylbenzene	<5.00	5.00		ug/L ug/L			10/11/13 19:43	
Ethylene Dibromide	<5.00	5.00		ug/L ug/L			10/11/13 19:43	
Hexachlorobutadiene	<2.00	2.00		_				
	<50.0	50.0		ug/L			10/11/13 19:43	
sopropyl ether			2.95				10/11/13 19:43	
sopropylbenzene	<5.00 <5.00	5.00	3.95	_			10/11/13 19:43	
Methyl tert-butyl ether	<5.00	5.00	0.800				10/11/13 19:43	
Methylene Chloride	<5.00	5.00		ug/L			10/11/13 19:43	
n-Xylene & p-Xylene Naphthalene	<10.0 <25.0	10.0 25.0		ug/L ug/L			10/11/13 19:43 10/11/13 19:43	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Analyte

C5-C8 Aliphatics (adjusted)

2,5-Dibromotoluene (pid)

Client Sample ID: WCMW-7

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-6

Matrix: Water

Date Collected: 10/03/13 12:17 Date Received: 10/08/13 01:25

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Result Qualifier

<50.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	<5.00		5.00	3.20	ug/L			10/11/13 19:43	5
N-Propylbenzene	<5.00		5.00	3.45	ug/L			10/11/13 19:43	5
o-Xylene	<5.00		5.00	3.80	ug/L			10/11/13 19:43	5
sec-Butylbenzene	<5.00		5.00	3.75	ug/L			10/11/13 19:43	5
Styrene	<5.00		5.00	3.65	ug/L			10/11/13 19:43	5
Tert-amyl methyl ether	<25.0		25.0	1.35	ug/L			10/11/13 19:43	5
Tert-butyl ethyl ether	<25.0		25.0	1.47	ug/L			10/11/13 19:43	5
tert-Butylbenzene	<5.00		5.00	4.05	ug/L			10/11/13 19:43	5
Tetrachloroethene	<5.00		5.00	1.80	ug/L			10/11/13 19:43	5
Tetrahydrofuran	<50.0		50.0	6.25	ug/L			10/11/13 19:43	5
Toluene	<5.00		5.00	2.55	ug/L			10/11/13 19:43	5
trans-1,2-Dichloroethene	<5.00		5.00	4.50	ug/L			10/11/13 19:43	5
trans-1,3-Dichloropropene	<2.00		2.00	1.85	ug/L			10/11/13 19:43	5
Trichloroethene	23.9		5.00	2.30	ug/L			10/11/13 19:43	5
Trichlorofluoromethane	<5.00		5.00	4.40	ug/L			10/11/13 19:43	5
Vinyl chloride	<5.00		5.00	4.50	ug/L			10/11/13 19:43	5
Dibromomethane	<5.00		5.00	2.05	ug/L			10/11/13 19:43	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		70 - 130			·=		10/11/13 19:43	5
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					10/11/13 19:43	5
4-Bromofluorobenzene (Surr)	102		70 - 130					10/11/13 19:43	5

Method: MAVPH - Massachuse Analyte		roleum Hyo	rocarbons (GC	•	Unit	D	Prepared	Analyzed	Dil Fac
		Quanner					Frepareu		
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 14:36	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 14:36	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 14:36	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	98	-	70 - 130			-		10/08/13 14:36	

70 - 130

RL

50.0

MDL Unit

15.0 ug/L

Prepared

Analyzed

10/09/13 16:39

10/08/13 14:36

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Acenaphthene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Acenaphthylene (TSP)	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Anthracene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Benzo[a]anthracene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Benzo[a]pyrene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Benzo[b]fluoranthene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Benzo[g,h,i]perylene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Benzo[k]fluoranthene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Chrysene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
Dibenz(a,h)anthracene	<9.47	9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1

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Dil Fac

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TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-7** 

Lab Sample ID: 480-47378-6 Date Collected: 10/03/13 12:17

Matrix: Water

Date Received: 10/08/13 01:25

ts - Extractable	Petroleum	<b>Hydrocarbons</b>	(GC) (Cd	ontinued)	)			
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
<9.47		9.47	1.89	ug/L		10/11/13 11:32	10/12/13 18:57	1
16.7	J B	47.3	9.47	ug/L		10/11/13 11:32	10/12/13 18:57	1
16.5	J	47.3	9.47	ug/L		10/11/13 11:32	10/12/13 18:57	1
11.9	JB	47.3	9.47	ug/L		10/11/13 11:32	10/12/13 18:57	1
Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
46		40 - 140				10/11/13 11:32	10/12/13 18:57	1
83		40 - 140				10/11/13 11:32	10/12/13 18:57	1
98		40 - 140				10/11/13 11:32	10/12/13 18:57	1
74		40 - 140				10/11/13 11:32	10/12/13 18:57	1
	Result   <9.47   <9.47   <9.47   <9.47   <9.47   <9.47   <9.47   <16.5   11.9   Result   <50.0   %Recovery   46   83   98	Result   Qualifier	Result         Qualifier         RL           <9.47	Result         Qualifier         RL         MDL           <9.47	Result         Qualifier         RL         MDL         Unit           <9.47	<9.47	Result         Qualifier         RL         MDL         Unit         D         Prepared           < 9.47	Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed           < 9.47

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:02	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:02	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:02	1
Barium	0.420		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:02	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:02	1
Nickel	0.00376	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:02	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:02	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:02	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:02	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:02	1
Zinc	0.0130	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:02	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:02	1
Chromium	0.00176	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:02	1

 Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:28	1

Client Sample ID: WCMW-907 Lab Sample ID: 480-47378-7 Date Collected: 10/03/13 12:17 Matrix: Water

Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Acenaphthene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Acenaphthylene (TSP)	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Anthracene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Benzo[a]anthracene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Benzo[a]pyrene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Client Sample ID: WCMW-907

Lab Sample ID: 480-47378-7 Date Collected: 10/03/13 12:17

Matrix: Water

Date Received: 10/08/13 01:25 Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Benzo[g,h,i]perylene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Benzo[k]fluoranthene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Chrysene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Dibenz(a,h)anthracene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Fluoranthene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Fluorene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Indeno[1,2,3-cd]pyrene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Naphthalene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Phenanthrene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
Pyrene	<9.45		9.45	1.89	ug/L		10/11/13 11:32	10/12/13 19:27	1
C11-C22 Aromatics (unadjusted)	15.4	JB	47.3	9.45	ug/L		10/11/13 11:32	10/12/13 19:27	1
C19-C36 Aliphatics	<47.3		47.3	9.45	ug/L		10/11/13 11:32	10/12/13 19:27	1
C9-C18 Aliphatics	12.9	JB	47.3	9.45	ug/L		10/11/13 11:32	10/12/13 19:27	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	44	40 - 140	10/11/13 11:32	10/12/13 19:27	1
2-Bromonaphthalene	83	40 - 140	10/11/13 11:32	10/12/13 19:27	1
2-Fluorobiphenyl	96	40 - 140	10/11/13 11:32	10/12/13 19:27	1
o-Terphenyl	71	40 - 140	10/11/13 11:32	10/12/13 19:27	1

Method: 6010 - Metals (	ICP) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:22	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:22	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:22	1
Barium	0.417		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:22	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:22	1
Nickel	0.00138	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:22	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:22	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:22	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:22	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:22	1
Zinc	0.00736	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:22	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:22	1
Chromium	0.00181	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:22	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:36	1

Client Sample ID: MW-2R Lab Sample ID: 480-47378-8 Date Collected: 10/03/13 12:27 Matrix: Water

Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic (	Compounds (GC/MS)						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50 ug/L			10/11/13 20:08	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-8

Matrix: Water

Client Sample ID: MW-2R

Date Collected: 10/03/13 12:27 Date Received: 10/08/13 01:25

Isopropylbenzene

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<10.0	10.0	8.20	ug/L			10/11/13 20:08	10
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L			10/11/13 20:08	10
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 20:08	10
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L			10/11/13 20:08	10
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L			10/11/13 20:08	10
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L			10/11/13 20:08	10
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 20:08	10
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L			10/11/13 20:08	10
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 20:08	10
1,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 20:08	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L			10/11/13 20:08	10
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L			10/11/13 20:08	10
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L			10/11/13 20:08	10
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L			10/11/13 20:08	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L			10/11/13 20:08	10
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L			10/11/13 20:08	10
1,3-Dichloropropane	<10.0	10.0		ug/L			10/11/13 20:08	10
1,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L			10/11/13 20:08	10
1,4-Dioxane	<500	500	93.2	ug/L			10/11/13 20:08	10
2,2-Dichloropropane	<10.0	10.0		ug/L			10/11/13 20:08	10
2-Butanone (MEK)	<100 *	100		ug/L			10/11/13 20:08	 10
2-Chlorotoluene	<10.0	10.0		ug/L			10/11/13 20:08	10
2-Hexanone	<100	100		ug/L			10/11/13 20:08	10
4-Chlorotoluene	<10.0	10.0		ug/L			10/11/13 20:08	 10
4-Isopropyltoluene	<10.0	10.0		ug/L			10/11/13 20:08	10
4-Methyl-2-pentanone (MIBK)	<100	100		ug/L			10/11/13 20:08	10
Acetone	<500	500	30.0	<del>.</del>			10/11/13 20:08	10
Benzene	<10.0	10.0	4.10	•			10/11/13 20:08	10
Bromobenzene	<10.0	10.0		ug/L			10/11/13 20:08	10
Bromoform	<10.0	10.0	2.60				10/11/13 20:08	10
Bromomethane	<20.0	20.0	6.90	-			10/11/13 20:08	10
Carbon disulfide	<100	100		ug/L			10/11/13 20:08	10
Carbon tetrachloride	<10.0	10.0		ug/L			10/11/13 20:08	10
Chlorobenzene	<10.0	10.0		ug/L			10/11/13 20:08	10
Chlorobromomethane	<10.0	10.0		ug/L			10/11/13 20:08	10
Chlorodibromomethane	<5.00	5.00		ug/L			10/11/13 20:08	 1(
Chloroethane	<20.0	20.0		ug/L			10/11/13 20:08	10
Chloroform	<10.0	10.0		ug/L			10/11/13 20:08	10
Chloromethane	<20.0	20.0		ug/L			10/11/13 20:08	1(
cis-1,2-Dichloroethene	<10.0	10.0		ug/L			10/11/13 20:08	10
cis-1,3-Dichloropropene	<4.00	4.00		ug/L			10/11/13 20:08	10
Dichlorobromomethane	<5.00	5.00		ug/L			10/11/13 20:08	
Dichlorodifluoromethane	<10.0	10.0		ug/L			10/11/13 20:08	10
Ethyl ether	<10.0	10.0		ug/L			10/11/13 20:08	10
Ethylbenzene	<10.0	10.0		ug/L			10/11/13 20:08	
Ethylene Dibromide	<10.0	10.0		ug/L			10/11/13 20:08	10
Hexachlorobutadiene	<4.00	4.00		ug/L			10/11/13 20:08	10
Isopropyl ether	<100	100		ug/L			10/11/13 20:08	
isopiopyi eulei	100	100	5.50	ug/L			10/11/13 20:00	10

TestAmerica Buffalo

10/11/13 20:08

10.0

7.90 ug/L

<10.0

2

6

8

10

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-8

Matrix: Water

Client Sample ID: MW-2R Date Collected: 10/03/13 12:27 Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued) Dil Fac Result Qualifier RL MDL Unit D Analyte Prepared Analyzed Methyl tert-butyl ether <10.0 10.0 1.60 10/11/13 20:08 ug/L 10 <10.0 Methylene Chloride 10.0 10/11/13 20:08 10 4.40 ug/L m-Xylene & p-Xylene <20.0 20.0 6.60 ug/L 10/11/13 20:08 10 Naphthalene <50.0 50.0 10/11/13 20:08 10 4.30 ug/L n-Butylbenzene <10.0 10.0 6.40 ug/L 10/11/13 20:08 10 <10.0 10.0 N-Propylbenzene 6.90 ug/L 10/11/13 20:08 10 o-Xylene <10.0 10.0 7.60 ug/L 10/11/13 20:08 10 sec-Butylbenzene <10.0 10.0 ug/L 10/11/13 20:08 10 7.50 Styrene <10.0 10.0 7.30 ug/L 10/11/13 20:08 10 Tert-amyl methyl ether <50.0 50.0 2.70 ug/L 10/11/13 20:08 10 Tert-butyl ethyl ether 50.0 <50.0 2.94 ug/L 10/11/13 20:08 10 <10.0 10.0 10 tert-Butylbenzene 8.10 ug/L 10/11/13 20:08 Tetrachloroethene <10.0 10.0 3.60 ug/L 10/11/13 20:08 10 Tetrahydrofuran <100 100 12.5 ug/L 10/11/13 20:08 10 Toluene <10.0 10.0 5.10 ug/L 10/11/13 20:08 10 trans-1,2-Dichloroethene <10.0 10.0 9.00 ug/L 10/11/13 20:08 10 trans-1,3-Dichloropropene <4.00 4.00 ug/L 3.70 10/11/13 20:08 10 Trichloroethene <10.0 10.0 4.60 ug/L 10/11/13 20:08 10 Trichlorofluoromethane <10.0 10.0 ug/L 10/11/13 20:08 10 8.80 Vinyl chloride <10.0 10.0 9.00 ug/L 10/11/13 20:08 10 Dibromomethane <10.0 10.0 4.10 ug/L 10/11/13 20:08 10 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac Toluene-d8 (Surr) 91 70 - 130 10/11/13 20:08 10 1,2-Dichloroethane-d4 (Surr) 92 70 - 130 10/11/13 20:08 10 103 70 - 130 10/11/13 20:08 10 4-Bromofluorobenzene (Surr)

Method: MA VPH -	Massachusetts - Volatile Petroleum F	lydrocarbons (	GC)	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)
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Analyte	Result	Qualifier	KL	MDL	Unit	U	Prepared	Analyzed	DII Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 15:15	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 15:15	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 15:15	10

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzea	DII Fac	
2,5-Dibromotoluene (fid)	96		70 - 130	_		10/08/13 15:15	10	
2,5-Dibromotoluene (pid)	97		70 - 130			10/08/13 15:15	10	

#### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Acenaphthene	8.64	J	9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Acenaphthylene (TSP)	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Anthracene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Benzo[a]anthracene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Benzo[a]pyrene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Benzo[b]fluoranthene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1

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TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: MW-2R

Lab Sample ID: 480-47378-8

Matrix: Water

Date Collected: 10/03/13 12:27 Date Received: 10/08/13 01:25

Method: MA-EPH - Massachuset		Qualifier	•	MDI	l lmi4		Duamanad	Amalumad	Dil Fac
Analyte		Quaimer	RL	MDL		D	Prepared	Analyzed	DII Fac
Benzo[g,h,i]perylene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Benzo[k]fluoranthene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Chrysene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Dibenz(a,h)anthracene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Fluoranthene	2.34	J	9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Fluorene	6.92	J	9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Indeno[1,2,3-cd]pyrene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Naphthalene	3.16	J	9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Phenanthrene	11.3		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
Pyrene	<9.52		9.52	1.90	ug/L		10/11/13 11:32	10/14/13 13:32	1
C11-C22 Aromatics (unadjusted)	77.0	В	47.6	9.52	ug/L		10/11/13 11:32	10/14/13 13:32	1
C19-C36 Aliphatics	<47.6		47.6	9.52	ug/L		10/11/13 11:32	10/14/13 13:32	1
C9-C18 Aliphatics	13.2	J B	47.6	9.52	ug/L		10/11/13 11:32	10/14/13 13:32	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	48		40 - 140				10/11/13 11:32	10/14/13 13:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	1	Analyzed	Dil Fac
1-Chlorooctadecane	48		40 - 140	10/11/13 11	:32 1	10/14/13 13:32	1
2-Bromonaphthalene	86		40 - 140	10/11/13 11	:32 1	10/14/13 13:32	1
2-Fluorobiphenyl	104		40 - 140	10/11/13 11	:32 1	10/14/13 13:32	1
o-Terphenyl	74		40 - 140	10/11/13 11	:32 1	10/14/13 13:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:25	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:25	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:25	1
Barium	0.248		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:25	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:25	1
Nickel	0.00335	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:25	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:25	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:25	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:25	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:25	1
Zinc	0.00270	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:25	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:25	1
Chromium	0.00131	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:25	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L	_	10/09/13 08:15	10/09/13 13:38	1

Client Sample ID: WCMW-8

Date Collected: 10/03/13 14:07

Lab Sample ID: 480-47378-9

Matrix: Water

Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organ	nic Compounds (GC/MS)					
Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50 ug/L		10/11/13 20:33	10
1,1,1-Trichloroethane	<10.0	10.0	8.20 ug/L		10/11/13 20:33	10

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-9

Matrix: Water

**Client Sample ID: WCMW-8** 

Date Collected: 10/03/13 14:07 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL		D Prepared	Analyzed	Dil Fa
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L		10/11/13 20:33	1
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L		10/11/13 20:33	1
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L		10/11/13 20:33	1
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L		10/11/13 20:33	1
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L		10/11/13 20:33	1
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L		10/11/13 20:33	1
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L		10/11/13 20:33	1
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L		10/11/13 20:33	1
I,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L		10/11/13 20:33	1
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L		10/11/13 20:33	1
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L		10/11/13 20:33	1
1,2-Dichloroethane	<10.0	10.0	2.10			10/11/13 20:33	1
I,2-Dichloropropane	<10.0	10.0	7.20	_		10/11/13 20:33	1
I,3,5-Trimethylbenzene	<10.0	10.0	7.70			10/11/13 20:33	1
I,3-Dichlorobenzene	<10.0	10.0	7.80	-		10/11/13 20:33	1
I,3-Dichloropropane	<10.0	10.0	7.50	_		10/11/13 20:33	1
1,4-Dichlorobenzene	<10.0	10.0	8.40	<del>.</del>		10/11/13 20:33	 1
I.4-Dioxane	<500	500	93.2			10/11/13 20:33	,
2,2-Dichloropropane	<10.0	10.0	4.00	_		10/11/13 20:33	,
2-Butanone (MEK)	<100 *	100	13.2			10/11/13 20:33	
-Chlorotoluene	<10.0	10.0	8.60	_		10/11/13 20:33	
-Hexanone	<100	100	12.4	-		10/11/13 20:33	
-Chlorotoluene	<10.0	10.0	8.40			10/11/13 20:33	
-Isopropyltoluene	<10.0	10.0	3.10			10/11/13 20:33	
	<100	100	21.0			10/11/13 20:33	,
I-Methyl-2-pentanone (MIBK)							
Acetone	<500	500	30.0	_		10/11/13 20:33	
Benzene	<10.0	10.0	4.10	_		10/11/13 20:33	
Bromobenzene	<10.0	10.0	8.00	<del>.</del>		10/11/13 20:33	
Bromoform	<10.0	10.0	2.60			10/11/13 20:33	
Bromomethane	<20.0	20.0	6.90			10/11/13 20:33	
Carbon disulfide	<100	100	1.90			10/11/13 20:33	
Carbon tetrachloride	<10.0	10.0	2.70	_		10/11/13 20:33	
Chlorobenzene	<10.0	10.0	7.50	-		10/11/13 20:33	
Chlorobromomethane	<10.0	10.0	8.70			10/11/13 20:33	
Chlorodibromomethane	<5.00	5.00	3.20			10/11/13 20:33	
Chloroethane	<20.0	20.0	3.20			10/11/13 20:33	
Chloroform	<10.0	10.0	3.40	<del>. </del>		10/11/13 20:33	
Chloromethane	<20.0	20.0	3.50	ug/L		10/11/13 20:33	
is-1,2-Dichloroethene	<10.0	10.0	8.10	ug/L		10/11/13 20:33	
s-1,3-Dichloropropene	<4.00	4.00	3.60	ug/L		10/11/13 20:33	
ichlorobromomethane	<5.00	5.00	3.90	ug/L		10/11/13 20:33	
ichlorodifluoromethane	<10.0	10.0	6.80	ug/L		10/11/13 20:33	
thyl ether	<10.0	10.0	7.20	ug/L		10/11/13 20:33	
thylbenzene	<10.0	10.0	7.40	ug/L		10/11/13 20:33	
thylene Dibromide	<10.0	10.0	7.30	ug/L		10/11/13 20:33	
lexachlorobutadiene	<4.00	4.00	2.80	ug/L		10/11/13 20:33	
sopropyl ether	<100	100	5.90	ug/L		10/11/13 20:33	
sopropylbenzene	<10.0	10.0	7.90	ug/L		10/11/13 20:33	
Nethyl tert-butyl ether	<10.0	10.0	1.60	-		10/11/13 20:33	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-9

Matrix: Water

Client Sample ID: WCMW-8

Date Collected: 10/03/13 14:07 Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	<10.0		10.0	4.40	ug/L			10/11/13 20:33	10
m-Xylene & p-Xylene	<20.0		20.0	6.60	ug/L			10/11/13 20:33	10
Naphthalene	<50.0		50.0	4.30	ug/L			10/11/13 20:33	10
n-Butylbenzene	<10.0		10.0	6.40	ug/L			10/11/13 20:33	10
N-Propylbenzene	<10.0		10.0	6.90	ug/L			10/11/13 20:33	10
o-Xylene	<10.0		10.0	7.60	ug/L			10/11/13 20:33	10
sec-Butylbenzene	<10.0		10.0	7.50	ug/L			10/11/13 20:33	10
Styrene	<10.0		10.0	7.30	ug/L			10/11/13 20:33	10
Tert-amyl methyl ether	<50.0		50.0	2.70	ug/L			10/11/13 20:33	10
Tert-butyl ethyl ether	<50.0		50.0	2.94	ug/L			10/11/13 20:33	10
tert-Butylbenzene	<10.0		10.0	8.10	ug/L			10/11/13 20:33	10
Tetrachloroethene	<10.0		10.0	3.60	ug/L			10/11/13 20:33	10
Tetrahydrofuran	<100		100	12.5	ug/L			10/11/13 20:33	10
Toluene	<10.0		10.0	5.10	ug/L			10/11/13 20:33	10
trans-1,2-Dichloroethene	<10.0		10.0	9.00	ug/L			10/11/13 20:33	10
trans-1,3-Dichloropropene	<4.00		4.00	3.70	ug/L			10/11/13 20:33	10
Trichloroethene	<10.0		10.0	4.60	ug/L			10/11/13 20:33	10
Trichlorofluoromethane	<10.0		10.0	8.80	ug/L			10/11/13 20:33	10
Vinyl chloride	<10.0		10.0	9.00	ug/L			10/11/13 20:33	10
Dibromomethane	<10.0		10.0	4.10	ug/L			10/11/13 20:33	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92		70 - 130			-		10/11/13 20:33	10
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					10/11/13 20:33	10
4-Bromofluorobenzene (Surr)	101		70 - 130					10/11/13 20:33	10

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<50.0	50.0	15.0 ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0	50.0	15.0 ug/L			10/09/13 16:39	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 16:31	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 16:31	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 16:31	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	94		70 - 130			-		10/08/13 16:31	10
2,5-Dibromotoluene (pid)	96		70 - 130					10/08/13 16:31	10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Acenaphthene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Acenaphthylene (TSP)	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Anthracene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Benzo[a]anthracene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Benzo[a]pyrene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Benzo[b]fluoranthene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Benzo[g,h,i]perylene	<9.49	9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-9

Matrix: Water

**Client Sample ID: WCMW-8** 

Date Collected: 10/03/13 14:07 Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Chrysene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Dibenz(a,h)anthracene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Fluoranthene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Fluorene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Indeno[1,2,3-cd]pyrene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Naphthalene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Phenanthrene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
Pyrene	<9.49		9.49	1.90	ug/L		10/11/13 11:32	10/12/13 20:56	1
C11-C22 Aromatics (unadjusted)	19.3	J B	47.4	9.49	ug/L		10/11/13 11:32	10/12/13 20:56	1
C19-C36 Aliphatics	<47.4		47.4	9.49	ug/L		10/11/13 11:32	10/12/13 20:56	1
C9-C18 Aliphatics	<47.4		47.4	9.49	ug/L		10/11/13 11:32	10/12/13 20:56	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	44		40 - 140				10/11/13 11:32	10/12/13 20:56	1
2-Bromonaphthalene	82		40 - 140				10/11/13 11:32	10/12/13 20:56	1
2-Fluorobiphenyl	96		40 - 140				10/11/13 11:32	10/12/13 20:56	1
o-Terphenyl	68		40 - 140				10/11/13 11:32	10/12/13 20:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:28	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:28	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:28	1
Barium	0.335		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:28	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:28	1
Nickel	<0.0100		0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:28	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:28	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:28	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:28	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:28	1
Zinc	0.00301	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:28	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:28	1
Chromium	0.00133	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:28	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:39	1

Lab Sample ID: 480-47378-10 Client Sample ID: WCMW-11 Date Collected: 10/03/13 14:20 Matrix: Water

Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic	c Compounds (GC/MS)						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50 ug/L			10/11/13 20:59	10
1,1,1-Trichloroethane	<10.0	10.0	8.20 ug/L			10/11/13 20:59	10
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10 ug/L			10/11/13 20:59	10

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-10

Matrix: Water

Client Sample ID: WCMW-11

Date Collected: 10/03/13 14:20 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL		Unit	D Pr	epared	Analyzed	Dil Fa
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 20:59	10
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L			10/11/13 20:59	10
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L			10/11/13 20:59	10
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L			10/11/13 20:59	10
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 20:59	10
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L			10/11/13 20:59	10
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 20:59	10
1,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 20:59	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L			10/11/13 20:59	10
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L			10/11/13 20:59	10
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L			10/11/13 20:59	10
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L			10/11/13 20:59	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L			10/11/13 20:59	10
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L			10/11/13 20:59	10
1,3-Dichloropropane	<10.0	10.0	7.50	ug/L			10/11/13 20:59	10
1,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L			10/11/13 20:59	10
1,4-Dioxane	<500	500	93.2				10/11/13 20:59	10
2,2-Dichloropropane	<10.0	10.0	4.00				10/11/13 20:59	10
2-Butanone (MEK)	<100 *	100	13.2				10/11/13 20:59	10
2-Chlorotoluene	<10.0	10.0		ug/L			10/11/13 20:59	10
2-Hexanone	<100	100		ug/L			10/11/13 20:59	10
4-Chlorotoluene	<10.0	10.0	8.40				10/11/13 20:59	10
4-Isopropyltoluene	<10.0	10.0	3.10				10/11/13 20:59	10
4-Methyl-2-pentanone (MIBK)	<100	100		ug/L			10/11/13 20:59	10
Acetone	<500	500	30.0	<del>.</del>			10/11/13 20:59	10
Benzene	<10.0	10.0	4.10				10/11/13 20:59	10
Bromobenzene	<10.0	10.0	8.00	-			10/11/13 20:59	10
Bromoform	<10.0	10.0	2.60				10/11/13 20:59	10
Bromomethane	<20.0	20.0	6.90	_			10/11/13 20:59	10
Carbon disulfide	<100	100	1.90				10/11/13 20:59	10
Carbon tetrachloride	<10.0	10.0	2.70				10/11/13 20:59	
Chlorobenzene	<10.0	10.0	7.50				10/11/13 20:59	10
Chlorobromomethane	<10.0	10.0	8.70	_			10/11/13 20:59	10
Chlorodibromomethane	<5.00	5.00		ug/L			10/11/13 20:59	 1(
Chloroethane	<20.0	20.0	3.20	_			10/11/13 20:59	10
								10
Chloroform Chloromethane	<10.0 <20.0	10.0	3.50	ug/L			10/11/13 20:59 10/11/13 20:59	
cis-1,2-Dichloroethene	<10.0	10.0		ug/L			10/11/13 20:59	
cis-1,3-Dichloropropene	<4.00	4.00		ug/L ug/L				1(
							10/11/13 20:59	10
Dichlorobromomethane	<5.00	5.00		ug/L			10/11/13 20:59	10
Dichlorodifluoromethane	<10.0	10.0		ug/L			10/11/13 20:59	10
Ethyl ether	<10.0	10.0		ug/L			10/11/13 20:59	10
Ethylbenzene	<10.0	10.0		ug/L			10/11/13 20:59	10
Ethylene Dibromide	<10.0	10.0		ug/L			10/11/13 20:59	10
Hexachlorobutadiene	<4.00	4.00	2.80	<del>.</del>			10/11/13 20:59	10
Isopropyl ether	<100	100		ug/L			10/11/13 20:59	10
Isopropylbenzene	<10.0	10.0	7.90	ug/L			10/11/13 20:59	10
Methyl tert-butyl ether	<10.0	10.0		ug/L			10/11/13 20:59	10

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-10

Matrix: Water

Client Sample ID: WCMW-11
Date Collected: 10/03/13 14:20

Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<20.0		20.0	6.60	ug/L			10/11/13 20:59	10
Naphthalene	<50.0		50.0	4.30	ug/L			10/11/13 20:59	10
n-Butylbenzene	<10.0		10.0	6.40	ug/L			10/11/13 20:59	10
N-Propylbenzene	<10.0		10.0	6.90	ug/L			10/11/13 20:59	10
o-Xylene	<10.0		10.0	7.60	ug/L			10/11/13 20:59	10
sec-Butylbenzene	<10.0		10.0	7.50	ug/L			10/11/13 20:59	10
Styrene	<10.0		10.0	7.30	ug/L			10/11/13 20:59	10
Tert-amyl methyl ether	<50.0		50.0	2.70	ug/L			10/11/13 20:59	10
Tert-butyl ethyl ether	<50.0		50.0	2.94	ug/L			10/11/13 20:59	10
tert-Butylbenzene	<10.0		10.0	8.10	ug/L			10/11/13 20:59	10
Tetrachloroethene	<10.0		10.0	3.60	ug/L			10/11/13 20:59	10
Tetrahydrofuran	<100		100	12.5	ug/L			10/11/13 20:59	10
Toluene	<10.0		10.0	5.10	ug/L			10/11/13 20:59	10
trans-1,2-Dichloroethene	<10.0		10.0	9.00	ug/L			10/11/13 20:59	10
trans-1,3-Dichloropropene	<4.00		4.00	3.70	ug/L			10/11/13 20:59	10
Trichloroethene	<10.0		10.0	4.60	ug/L			10/11/13 20:59	10
Trichlorofluoromethane	<10.0		10.0	8.80	ug/L			10/11/13 20:59	10
Vinyl chloride	<10.0		10.0	9.00	ug/L			10/11/13 20:59	10
Dibromomethane	<10.0		10.0	4.10	ug/L			10/11/13 20:59	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		70 - 130			-		10/11/13 20:59	10
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					10/11/13 20:59	10
4-Bromofluorobenzene (Surr)	102		70 - 130					10/11/13 20:59	10

Method: MA VPH - Massachusetts	- Volatile Per	troleum Hydr	ocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 17:10	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 17:10	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 17:10	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	94		70 - 130					10/08/13 17:10	10
2,5-Dibromotoluene (pid)	97		70 - 130					10/08/13 17:10	10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Acenaphthene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Acenaphthylene (TSP)	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Anthracene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Benzo[a]anthracene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Benzo[a]pyrene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Benzo[b]fluoranthene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Benzo[g,h,i]perylene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Benzo[k]fluoranthene	<11.0	11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1

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TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-11** 

Lab Sample ID: 480-47378-10

Matrix: Water

Date Collected: 10/03/13 14:20 Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Dibenz(a,h)anthracene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Fluoranthene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Fluorene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Indeno[1,2,3-cd]pyrene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Naphthalene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Phenanthrene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
Pyrene	<11.0		11.0	2.21	ug/L		10/11/13 11:32	10/12/13 21:25	1
C11-C22 Aromatics (unadjusted)	16.0	JB	55.2	11.0	ug/L		10/11/13 11:32	10/12/13 21:25	1
C19-C36 Aliphatics	15.8	J	55.2	11.0	ug/L		10/11/13 11:32	10/12/13 21:25	1
C9-C18 Aliphatics	<55.2		55.2	11.0	ug/L		10/11/13 11:32	10/12/13 21:25	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	46		40 - 140				10/11/13 11:32	10/12/13 21:25	1
2-Bromonaphthalene	87		40 - 140				10/11/13 11:32	10/12/13 21:25	1
2-Fluorobiphenyl	99		40 - 140				10/11/13 11:32	10/12/13 21:25	1
o-Terphenyl	67		40 - 140				10/11/13 11:32	10/12/13 21:25	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:30	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:30	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:30	1
Barium	0.160		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:30	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:30	1
Nickel	0.00389	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:30	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:30	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:30	1
Arsenic	0.00563	J	0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:30	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:30	1
Zinc	0.0132	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:30	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:30	1
Chromium	0.00172		0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:30	1

 Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:41	1

Client Sample ID: WCMW-4 Lab Sample ID: 480-47378-11 Date Collected: 10/03/13 14:52 Matrix: Water Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic Compounds (GC/MS)								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50	ug/L			10/11/13 21:24	10
1,1,1-Trichloroethane	<10.0	10.0	8.20	ug/L			10/11/13 21:24	10
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L			10/11/13 21:24	10
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 21:24	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-11

Matrix: Water

Client Sample ID: WCMW-4

Date Collected: 10/03/13 14:52 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L		-	10/11/13 21:24	1
1,1-Dichloroethene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,1-Dichloropropene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,2,3-Trichlorobenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,2,3-Trichloropropane	<10.0	10.0		ug/L			10/11/13 21:24	1
1,2,4-Trichlorobenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,2,4-Trimethylbenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,2-Dibromo-3-Chloropropane	<50.0	50.0		ug/L			10/11/13 21:24	1
1,2-Dichlorobenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,2-Dichloroethane	<10.0	10.0		ug/L			10/11/13 21:24	1
1,2-Dichloropropane	<10.0	10.0	7.20				10/11/13 21:24	1
1,3,5-Trimethylbenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,3-Dichlorobenzene	<10.0	10.0	7.80				10/11/13 21:24	1
1,3-Dichloropropane	<10.0	10.0		ug/L			10/11/13 21:24	1
1,4-Dichlorobenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
1,4-Dioxane	<500	500		ug/L			10/11/13 21:24	1
2,2-Dichloropropane	<10.0	10.0		ug/L			10/11/13 21:24	1
2-Butanone (MEK)	<10.0	100		ug/L			10/11/13 21:24	
2-Chlorotoluene	<10.0	10.0		ug/L			10/11/13 21:24	1
2-Hexanone	<100	100		ug/L			10/11/13 21:24	1
4-Chlorotoluene	<10.0	10.0		ug/L			10/11/13 21:24	
4-Isopropyltoluene	<10.0	10.0		ug/L			10/11/13 21:24	1
	<100	10.0		ug/L			10/11/13 21:24	1
4-Methyl-2-pentanone (MIBK) Acetone	<500	500		ug/L ug/L			10/11/13 21:24	
Benzene	<10.0	10.0		ug/L			10/11/13 21:24	1
Bromobenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
Bromoform	<10.0	10.0		ug/L ug/L			10/11/13 21:24	' 1
				-				
Bromomethane Carbon disulfide	<20.0	20.0 100		ug/L			10/11/13 21:24	1
Carbon disulfide Carbon tetrachloride	<100 <10.0	10.0		ug/L ug/L			10/11/13 21:24 10/11/13 21:24	1 1
Chlorobenzene								
Chlorobenzene Chlorobromomethane	<10.0	10.0		ug/L			10/11/13 21:24	1
	<10.0	10.0		ug/L			10/11/13 21:24	1
Chlorodibromomethane	<5.00	5.00		ug/L			10/11/13 21:24	1
Chloroform	<20.0	20.0		ug/L			10/11/13 21:24	1
Chloroform	<10.0	10.0		ug/L			10/11/13 21:24	
Chloromethane	<20.0	20.0		ug/L			10/11/13 21:24	1
cis-1,2-Dichloroethene	<10.0	10.0		ug/L			10/11/13 21:24	1
cis-1,3-Dichloropropene	<4.00	4.00		ug/L			10/11/13 21:24	
Dichlorobromomethane	<5.00	5.00		ug/L			10/11/13 21:24	1
Dichlorodifluoromethane	<10.0	10.0		ug/L			10/11/13 21:24	1
Ethyl ether	<10.0	10.0		ug/L			10/11/13 21:24	
Ethylbenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
Ethylene Dibromide	<10.0	10.0		ug/L			10/11/13 21:24	1
Hexachlorobutadiene	<4.00	4.00		ug/L			10/11/13 21:24	
Isopropyl ether	<100	100	5.90	ug/L			10/11/13 21:24	1
Isopropylbenzene	<10.0	10.0		ug/L			10/11/13 21:24	1
Methyl tert-butyl ether	<10.0	10.0		ug/L			10/11/13 21:24	
Methylene Chloride	<10.0	10.0	4.40	ug/L			10/11/13 21:24	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCMW-4

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-11

Matrix: Water

Date Collected: 10/03/13 14:52 Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<50.0		50.0	4.30	ug/L			10/11/13 21:24	10
n-Butylbenzene	<10.0		10.0	6.40	ug/L			10/11/13 21:24	10
N-Propylbenzene	<10.0		10.0	6.90	ug/L			10/11/13 21:24	10
o-Xylene	<10.0		10.0	7.60	ug/L			10/11/13 21:24	10
sec-Butylbenzene	<10.0		10.0	7.50	ug/L			10/11/13 21:24	10
Styrene	<10.0		10.0	7.30	ug/L			10/11/13 21:24	10
Tert-amyl methyl ether	<50.0		50.0	2.70	ug/L			10/11/13 21:24	10
Tert-butyl ethyl ether	<50.0		50.0	2.94	ug/L			10/11/13 21:24	10
tert-Butylbenzene	<10.0		10.0	8.10	ug/L			10/11/13 21:24	10
Tetrachloroethene	<10.0		10.0	3.60	ug/L			10/11/13 21:24	10
Tetrahydrofuran	<100		100	12.5	ug/L			10/11/13 21:24	10
Toluene	<10.0		10.0	5.10	ug/L			10/11/13 21:24	10
trans-1,2-Dichloroethene	<10.0		10.0	9.00	ug/L			10/11/13 21:24	10
trans-1,3-Dichloropropene	<4.00		4.00	3.70	ug/L			10/11/13 21:24	10
Trichloroethene	<10.0		10.0	4.60	ug/L			10/11/13 21:24	10
Trichlorofluoromethane	<10.0		10.0	8.80	ug/L			10/11/13 21:24	10
Vinyl chloride	<10.0		10.0	9.00	ug/L			10/11/13 21:24	10
Dibromomethane	<10.0		10.0	4.10	ug/L			10/11/13 21:24	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		70 - 130			-		10/11/13 21:24	10
1,2-Dichloroethane-d4 (Surr)	93		70 - 130					10/11/13 21:24	10
4-Bromofluorobenzene (Surr)	100		70 - 130					10/11/13 21:24	10

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)											
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10	
	C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ua/L			10/09/13 16:39	10	

Method: MAVPH - Massachuse	etts - Volatile Pet	roleum Hyd	Irocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 17:48	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 17:48	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 17:48	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	94		70 - 130			-		10/08/13 17:48	10
2,5-Dibromotoluene (pid)	97		70 - 130					10/08/13 17:48	10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Acenaphthene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Acenaphthylene (TSP)	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Anthracene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Benzo[a]anthracene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Benzo[a]pyrene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Benzo[b]fluoranthene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Benzo[g,h,i]perylene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Benzo[k]fluoranthene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
Chrysene	<9.50	9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1

TestAmerica Buffalo

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TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCMW-4

Lab Sample ID: 480-47378-11 Date Collected: 10/03/13 14:52

Matrix: Water Date Received: 10/08/13 01:25

- Extractable	Petroleum	<b>Hydrocarbons</b>	(GC) (Cd	ontinued)				
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<9.50		9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
<9.50		9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
<9.50		9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
<9.50		9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
<9.50		9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
<9.50		9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
<9.50		9.50	1.90	ug/L		10/11/13 11:32	10/12/13 21:54	1
12.1	J B	47.5	9.50	ug/L		10/11/13 11:32	10/12/13 21:54	1
11.4	J	47.5	9.50	ug/L		10/11/13 11:32	10/12/13 21:54	1
10.8	J B	47.5	9.50	ug/L		10/11/13 11:32	10/12/13 21:54	1
Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37	X	40 - 140				10/11/13 11:32	10/12/13 21:54	1
89		40 - 140				10/11/13 11:32	10/12/13 21:54	1
105		40 - 140				10/11/13 11:32	10/12/13 21:54	1
74		40 - 140				10/11/13 11:32	10/12/13 21:54	1
	Result   <9.50   <9.50   <9.50   <9.50   <9.50   <9.50   <9.50   <9.50   <12.1   11.4   10.8   Result   <50.0     %Recovery   37   89   105	Result   Qualifier	Result         Qualifier         RL           <9.50	Result         Qualifier         RL         MDL           <9.50	Result         Qualifier         RL         MDL         Unit           <9.50	Result         Qualifier         RL         MDL         Unit         D           <9.50	<9.50	Result Qualifier         RL         MDL Unit         D Prepared         Analyzed           < 9.50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:33	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:33	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:33	1
Barium	0.0754		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:33	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:33	1
Nickel	0.00225	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:33	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:33	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:33	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:33	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:33	1
Zinc	0.00350	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:33	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:33	1
Chromium	0.00126	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:33	1

Method: 7470A - Mercury (CVAA) - Dissolved										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:43	1

Client Sample ID: WCMW-1 Lab Sample ID: 480-47378-12 Date Collected: 10/03/13 15:42 **Matrix: Water** 

Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic Compounds (GC/MS)											
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
1,1,1,2-Tetrachloroethane	<10.0		10.0	3.50	ug/L			10/11/13 21:49	10		
1,1,1-Trichloroethane	<10.0		10.0	8.20	ug/L			10/11/13 21:49	10		
1,1,2,2-Tetrachloroethane	<5.00		5.00	2.10	ug/L			10/11/13 21:49	10		
1,1,2-Trichloroethane	<10.0		10.0	2.30	ug/L			10/11/13 21:49	10		
1,1-Dichloroethane	<10.0		10.0	3.80	ug/L			10/11/13 21:49	10		

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-12

Matrix: Water

Client Sample ID: WCMW-1

Date Collected: 10/03/13 15:42 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL		D	Prepared	Analyzed	Dil F
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L			10/11/13 21:49	
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L			10/11/13 21:49	
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 21:49	
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L			10/11/13 21:49	
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 21:49	
1,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 21:49	
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L			10/11/13 21:49	
I,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L			10/11/13 21:49	
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L			10/11/13 21:49	
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L			10/11/13 21:49	
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L			10/11/13 21:49	
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L			10/11/13 21:49	
1,3-Dichloropropane	<10.0	10.0	7.50	ug/L			10/11/13 21:49	
,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L			10/11/13 21:49	
,4-Dioxane	<500	500	93.2				10/11/13 21:49	
2,2-Dichloropropane	<10.0	10.0	4.00				10/11/13 21:49	
P-Butanone (MEK)	<100 *	100	13.2				10/11/13 21:49	
2-Chlorotoluene	<10.0	10.0	8.60				10/11/13 21:49	
2-Hexanone	<100	100	12.4				10/11/13 21:49	
I-Chlorotoluene	<10.0	10.0	8.40				10/11/13 21:49	
-Isopropyltoluene	<10.0	10.0	3.10	_			10/11/13 21:49	
-Methyl-2-pentanone (MIBK)	<100	100	21.0	-			10/11/13 21:49	
Acetone	<500	500	30.0				10/11/13 21:49	
Benzene	<10.0	10.0	4.10				10/11/13 21:49	
Bromobenzene	<10.0	10.0	8.00				10/11/13 21:49	
Bromoform	<10.0	10.0	2.60				10/11/13 21:49	
Bromomethane	<20.0	20.0	6.90	-			10/11/13 21:49	
	<100	100		_				
Carbon disulfide			1.90				10/11/13 21:49	
Carbon tetrachloride	<10.0	10.0	2.70				10/11/13 21:49	
Chlorobenzene	<10.0	10.0	7.50	_			10/11/13 21:49	
Chlorobromomethane	<10.0	10.0	8.70				10/11/13 21:49	
Chlorodibromomethane	<5.00	5.00		ug/L			10/11/13 21:49	
Chloroethane	<20.0	20.0	3.20	_			10/11/13 21:49	
Chloroform	<10.0	10.0	3.40				10/11/13 21:49	
Chloromethane	<20.0	20.0	3.50	_			10/11/13 21:49	
cis-1,2-Dichloroethene	<10.0	10.0	8.10				10/11/13 21:49	
sis-1,3-Dichloropropene	<4.00	4.00	3.60				10/11/13 21:49	
Dichlorobromomethane	<5.00	5.00	3.90				10/11/13 21:49	
Dichlorodifluoromethane	<10.0	10.0		ug/L			10/11/13 21:49	
Ethyl ether	<10.0	10.0	7.20				10/11/13 21:49	
Ethylbenzene	<10.0	10.0	7.40	ug/L			10/11/13 21:49	
Ethylene Dibromide	<10.0	10.0	7.30	ug/L			10/11/13 21:49	
Hexachlorobutadiene	<4.00	4.00		ug/L			10/11/13 21:49	
sopropyl ether	<100	100	5.90	ug/L			10/11/13 21:49	
sopropylbenzene	<10.0	10.0	7.90	ug/L			10/11/13 21:49	
Methyl tert-butyl ether	<10.0	10.0	1.60	ug/L			10/11/13 21:49	
Methylene Chloride	<10.0	10.0	4.40	ug/L			10/11/13 21:49	
n-Xylene & p-Xylene	<20.0	20.0	6.60	ug/L			10/11/13 21:49	
Naphthalene	<50.0	50.0	4.30	ua/l			10/11/13 21:49	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-12

Client Sample ID: WCMW-1 Lab

Date Collected: 10/03/13 15:42 Matrix: Water

Date Collected: 10/03/13 15:42 Matrix: Water Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	<10.0	10.0	6.40	ug/L			10/11/13 21:49	10
N-Propylbenzene	<10.0	10.0	6.90	ug/L			10/11/13 21:49	10
o-Xylene	<10.0	10.0	7.60	ug/L			10/11/13 21:49	10
sec-Butylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 21:49	10
Styrene	<10.0	10.0	7.30	ug/L			10/11/13 21:49	10
Tert-amyl methyl ether	<50.0	50.0	2.70	ug/L			10/11/13 21:49	10
Tert-butyl ethyl ether	<50.0	50.0	2.94	ug/L			10/11/13 21:49	10
tert-Butylbenzene	<10.0	10.0	8.10	ug/L			10/11/13 21:49	10
Tetrachloroethene	<10.0	10.0	3.60	ug/L			10/11/13 21:49	10
Tetrahydrofuran	<100	100	12.5	ug/L			10/11/13 21:49	10
Toluene	<10.0	10.0	5.10	ug/L			10/11/13 21:49	10
trans-1,2-Dichloroethene	<10.0	10.0	9.00	ug/L			10/11/13 21:49	10
trans-1,3-Dichloropropene	<4.00	4.00	3.70	ug/L			10/11/13 21:49	10
Trichloroethene	<10.0	10.0	4.60	ug/L			10/11/13 21:49	10
Trichlorofluoromethane	<10.0	10.0	8.80	ug/L			10/11/13 21:49	10
Vinyl chloride	<10.0	10.0	9.00	ug/L			10/11/13 21:49	10
Dibromomethane	<10.0	10.0	4.10	ug/L			10/11/13 21:49	10
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92	70 - 130			=		10/11/13 21:49	10
1,2-Dichloroethane-d4 (Surr)	93	70 - 130					10/11/13 21:49	10
4-Bromofluorobenzene (Surr)	101	70 - 130					10/11/13 21:49	10
Method: MA VPH - Massachus	etts - Volatile Petroleum I	Hydrocarbons (GC	;)					
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
C5-C8 Aliphatics (adjusted)	<50.0	50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0	50.0	15.0	ug/L			10/09/13 16:39	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 18:27	10
C9-C10 Aromatics	24.7	J	50.0	5.00	ug/L			10/08/13 18:27	10
C9-C12 Aliphatics (unadjusted)	18.4	J	50.0	15.0	ug/L			10/08/13 18:27	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	91		70 - 130			-		10/08/13 18:27	10
2,5-Dibromotoluene (pid)	94		70 - 130					10/08/13 18:27	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Acenaphthene	4.94	J	9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Acenaphthylene (TSP)	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Anthracene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Benzo[a]anthracene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Benzo[a]pyrene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Benzo[b]fluoranthene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Benzo[g,h,i]perylene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Benzo[k]fluoranthene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Chrysene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Dibenz(a,h)anthracene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-1** 

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-12

Matrix: Water

Date Collected: 10/03/13 15:42 Date Received: 10/08/13 01:25

Method: MA-EPH - Massachuset	tts - Extractable	Petroleum	<b>Hydrocarbons</b>	(GC) (C	ontinued)	)			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Fluorene	3.78	J	9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Indeno[1,2,3-cd]pyrene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Naphthalene	3.30	J	9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Phenanthrene	5.83	J	9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
Pyrene	<9.54		9.54	1.91	ug/L		10/11/13 11:32	10/12/13 22:24	1
C11-C22 Aromatics (unadjusted)	42.8	JB	47.7	9.54	ug/L		10/11/13 11:32	10/12/13 22:24	1
C19-C36 Aliphatics	<47.7		47.7	9.54	ug/L		10/11/13 11:32	10/12/13 22:24	1
C9-C18 Aliphatics	109	В	47.7	9.54	ug/L		10/11/13 11:32	10/12/13 22:24	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	34	X	40 - 140				10/11/13 11:32	10/12/13 22:24	1
2-Bromonaphthalene	86		40 - 140				10/11/13 11:32	10/12/13 22:24	1
2-Fluorobiphenyl	104		40 - 140				10/11/13 11:32	10/12/13 22:24	1
o-Terphenyl	73		40 - 140				10/11/13 11:32	10/12/13 22:24	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:35	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:35	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:35	1
Barium	0.0789		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:35	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:35	1
Nickel	0.00652	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:35	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:35	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:35	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:35	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:35	1
Zinc	0.00426	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:35	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:35	1
Chromium	0.00117	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:35	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:48	1

**Client Sample ID: MW-1R** Lab Sample ID: 480-47378-13 Date Collected: 10/03/13 15:50 Matrix: Water Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0		10.0	3.50	ug/L		<u> </u>	10/11/13 22:15	10
1,1,1-Trichloroethane	<10.0		10.0	8.20	ug/L			10/11/13 22:15	10
1,1,2,2-Tetrachloroethane	<5.00		5.00	2.10	ug/L			10/11/13 22:15	10
1,1,2-Trichloroethane	<10.0		10.0	2.30	ug/L			10/11/13 22:15	10
1,1-Dichloroethane	<10.0		10.0	3.80	ug/L			10/11/13 22:15	10
1,1-Dichloroethene	<10.0		10.0	2.90	ug/L			10/11/13 22:15	10

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-13

Matrix: Water

**Client Sample ID: MW-1R** 

Date Collected: 10/03/13 15:50 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL U		D Prepared	Analyzed	Dil Fa
1,1-Dichloropropene	<10.0	10.0	7.20 u	ıg/L		10/11/13 22:15	1
1,2,3-Trichlorobenzene	<10.0	10.0	4.10 u	ıg/L		10/11/13 22:15	1
1,2,3-Trichloropropane	<10.0	10.0	8.90 u	ıg/L		10/11/13 22:15	1
1,2,4-Trichlorobenzene	<10.0	10.0	4.10 u	ıg/L		10/11/13 22:15	1
1,2,4-Trimethylbenzene	<10.0	10.0	7.50 u	ıg/L		10/11/13 22:15	1
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90 u	ıg/L		10/11/13 22:15	1
1,2-Dichlorobenzene	<10.0	10.0	7.90 u	ıg/L		10/11/13 22:15	1
1,2-Dichloroethane	<10.0	10.0	2.10 u	ıg/L		10/11/13 22:15	1
1,2-Dichloropropane	<10.0	10.0	7.20 u	ıg/L		10/11/13 22:15	1
1,3,5-Trimethylbenzene	<10.0	10.0	7.70 u	ıg/L		10/11/13 22:15	1
1,3-Dichlorobenzene	<10.0	10.0	7.80 u	ıg/L		10/11/13 22:15	1
1,3-Dichloropropane	<10.0	10.0	7.50 u	ıg/L		10/11/13 22:15	1
1,4-Dichlorobenzene	<10.0	10.0	8.40 u	ıg/L		10/11/13 22:15	1
1,4-Dioxane	<500	500	93.2 u	ıg/L		10/11/13 22:15	1
2,2-Dichloropropane	<10.0	10.0	4.00 u	ıg/L		10/11/13 22:15	1
2-Butanone (MEK)	<100 *	100	13.2 u	ıg/L		10/11/13 22:15	1
2-Chlorotoluene	<10.0	10.0	8.60 u	ıg/L		10/11/13 22:15	1
2-Hexanone	<100	100	12.4 u	ıg/L		10/11/13 22:15	1
4-Chlorotoluene	<10.0	10.0	8.40 u	ıg/L		10/11/13 22:15	1
4-Isopropyltoluene	<10.0	10.0	3.10 u	ıg/L		10/11/13 22:15	1
4-Methyl-2-pentanone (MIBK)	<100	100	21.0 u	ıg/L		10/11/13 22:15	1
Acetone	<500	500	30.0 u	ıg/L		10/11/13 22:15	1
Benzene	<10.0	10.0	4.10 u			10/11/13 22:15	1
Bromobenzene	<10.0	10.0	8.00 u			10/11/13 22:15	1
Bromoform	<10.0	10.0	2.60 u			10/11/13 22:15	1
Bromomethane	<20.0	20.0	6.90 u			10/11/13 22:15	1
Carbon disulfide	<100	100	1.90 u	_		10/11/13 22:15	1
Carbon tetrachloride	<10.0	10.0	2.70 u			10/11/13 22:15	1
Chlorobenzene	<10.0	10.0	7.50 u	_		10/11/13 22:15	1
Chlorobromomethane	<10.0	10.0	8.70 u	=		10/11/13 22:15	1
Chlorodibromomethane	<5.00	5.00	3.20 u			10/11/13 22:15	1
Chloroethane	<20.0	20.0	3.20 u			10/11/13 22:15	1
Chloroform	<10.0	10.0	3.40 u	_		10/11/13 22:15	1
Chloromethane	<20.0	20.0	3.50 u			10/11/13 22:15	1
cis-1,2-Dichloroethene	<10.0	10.0	8.10 u	-		10/11/13 22:15	1
cis-1,3-Dichloropropene	<4.00	4.00	3.60 u	•		10/11/13 22:15	1
Dichlorobromomethane	<5.00	5.00	3.90 u			10/11/13 22:15	· · · · · · · · · · · 1
Dichlorodifluoromethane	<10.0	10.0	6.80 u			10/11/13 22:15	1
Ethyl ether	<10.0	10.0	7.20 u			10/11/13 22:15	1
Ethylbenzene	<10.0	10.0	7.40 u			10/11/13 22:15	·
Ethylene Dibromide	<10.0	10.0	7.30 u	-		10/11/13 22:15	1
Hexachlorobutadiene	<4.00	4.00	2.80 u	=		10/11/13 22:15	1
Isopropyl ether	<100	100	5.90 u			10/11/13 22:15	· · · · · · · · · · · · · · · · · · ·
Isopropylbenzene	<10.0	10.0	7.90 u			10/11/13 22:15	1
Methyl tert-butyl ether	<10.0	10.0	1.60 u	-		10/11/13 22:15	1
Methylene Chloride	<10.0	10.0	4.40 u			10/11/13 22:15	
m-Xylene & p-Xylene	<20.0	20.0	6.60 u			10/11/13 22:15	' 1
				-			
Naphthalene n-Butylbenzene	<50.0 <10.0	50.0	4.30 u 6.40 u			10/11/13 22:15 10/11/13 22:15	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: MW-1R** 

Date Collected: 10/03/13 15:50

Date Received: 10/08/13 01:25

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	<10.0		10.0	6.90	ug/L			10/11/13 22:15	10
o-Xylene	<10.0		10.0	7.60	ug/L			10/11/13 22:15	10
sec-Butylbenzene	<10.0		10.0	7.50	ug/L			10/11/13 22:15	10
Styrene	<10.0		10.0	7.30	ug/L			10/11/13 22:15	10
Tert-amyl methyl ether	<50.0		50.0	2.70	ug/L			10/11/13 22:15	10
Tert-butyl ethyl ether	<50.0		50.0	2.94	ug/L			10/11/13 22:15	10
tert-Butylbenzene	<10.0		10.0	8.10	ug/L			10/11/13 22:15	10
Tetrachloroethene	<10.0		10.0	3.60	ug/L			10/11/13 22:15	10
Tetrahydrofuran	<100		100	12.5	ug/L			10/11/13 22:15	10
Toluene	<10.0		10.0	5.10	ug/L			10/11/13 22:15	10
trans-1,2-Dichloroethene	<10.0		10.0	9.00	ug/L			10/11/13 22:15	10
trans-1,3-Dichloropropene	<4.00		4.00	3.70	ug/L			10/11/13 22:15	10
Trichloroethene	<10.0		10.0	4.60	ug/L			10/11/13 22:15	10
Trichlorofluoromethane	<10.0		10.0	8.80	ug/L			10/11/13 22:15	10
Vinyl chloride	<10.0		10.0	9.00	ug/L			10/11/13 22:15	10
Dibromomethane	<10.0		10.0	4.10	ug/L			10/11/13 22:15	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		70 - 130			-		10/11/13 22:15	10
1,2-Dichloroethane-d4 (Surr)	93		70 - 130					10/11/13 22:15	10
4-Bromofluorobenzene (Surr)	100		70 - 130					10/11/13 22:15	10

Method: MA VPH - Massachusetts	- Volatile Pet	troleum Hyd	rocarbons (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 19:05	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 19:05	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 19:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	91		70 - 130			_		10/08/13 19:05	10
2 5-Dibromotoluene (pid)	96		70 - 130					10/08/13 19:05	10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Acenaphthene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Acenaphthylene (TSP)	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Anthracene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Benzo[a]anthracene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Benzo[a]pyrene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Benzo[b]fluoranthene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Benzo[g,h,i]perylene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Benzo[k]fluoranthene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Chrysene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Dibenz(a,h)anthracene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Fluoranthene	<9.59	9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1

TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: MW-1R Lab Sample ID: 480-47378-13

Date Collected: 10/03/13 15:50 Matrix: Water Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<9.59		9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Indeno[1,2,3-cd]pyrene	<9.59		9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Naphthalene	<9.59		9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Phenanthrene	<9.59		9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
Pyrene	<9.59		9.59	1.92	ug/L		10/11/13 11:32	10/12/13 22:53	1
C11-C22 Aromatics (unadjusted)	12.7	J B	48.0	9.59	ug/L		10/11/13 11:32	10/12/13 22:53	1
C19-C36 Aliphatics	24.3	J	48.0	9.59	ug/L		10/11/13 11:32	10/12/13 22:53	1
C9-C18 Aliphatics	<48.0		48.0	9.59	ug/L		10/11/13 11:32	10/12/13 22:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	34	X	40 - 140				10/11/13 11:32	10/12/13 22:53	1
2-Bromonaphthalene	93		40 - 140				10/11/13 11:32	10/12/13 22:53	1
2-Fluorobiphenyl	105		40 - 140				10/11/13 11:32	10/12/13 22:53	1
o-Terphenyl	75		40 - 140				10/11/13 11:32	10/12/13 22:53	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:38	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:38	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:38	1
Barium	0.157		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:38	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:38	1
Nickel	<0.0100		0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:38	1
Vanadium	0.00159	J	0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:38	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:38	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:38	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:38	1
Zinc	0.00171	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:38	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:38	1
Chromium	0.00146	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:38	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:50	1

Client Sample ID: TB-10032013 Lab Sample ID: 480-47378-14

Date Collected: 10/03/13 12:00 Matrix: Water Date Received: 10/08/13 01:25

Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			10/11/13 22:40	1
1,1,1-Trichloroethane	<1.00		1.00	0.820	ug/L			10/11/13 22:40	1
1,1,2,2-Tetrachloroethane	<0.500		0.500	0.210	ug/L			10/11/13 22:40	1
1,1,2-Trichloroethane	<1.00		1.00	0.230	ug/L			10/11/13 22:40	1
1,1-Dichloroethane	<1.00		1.00	0.380	ug/L			10/11/13 22:40	1
1,1-Dichloroethene	<1.00		1.00	0.290	ug/L			10/11/13 22:40	1
1,1-Dichloropropene	<1.00		1.00	0.720	ug/L			10/11/13 22:40	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-14

**Matrix: Water** 

Client Sample ID: TB-10032013

Date Collected: 10/03/13 12:00 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2,3-Trichlorobenzene	<1.00	1.00	0.410	ug/L			10/11/13 22:40	
1,2,3-Trichloropropane	<1.00	1.00	0.890	ug/L			10/11/13 22:40	
1,2,4-Trichlorobenzene	<1.00	1.00	0.410	ug/L			10/11/13 22:40	
1,2,4-Trimethylbenzene	<1.00	1.00	0.750	ug/L			10/11/13 22:40	
1,2-Dibromo-3-Chloropropane	<5.00	5.00	0.390	ug/L			10/11/13 22:40	
1,2-Dichlorobenzene	<1.00	1.00	0.790	ug/L			10/11/13 22:40	
1,2-Dichloroethane	<1.00	1.00	0.210	ug/L			10/11/13 22:40	
1,2-Dichloropropane	<1.00	1.00	0.720	ug/L			10/11/13 22:40	
1,3,5-Trimethylbenzene	<1.00	1.00	0.770	ug/L			10/11/13 22:40	
1,3-Dichlorobenzene	<1.00	1.00	0.780	ug/L			10/11/13 22:40	
1,3-Dichloropropane	<1.00	1.00	0.750	ug/L			10/11/13 22:40	
1,4-Dichlorobenzene	<1.00	1.00	0.840	<del>.</del>			10/11/13 22:40	
1,4-Dioxane	<50.0	50.0		ug/L			10/11/13 22:40	
2,2-Dichloropropane	<1.00	1.00	0.400	-			10/11/13 22:40	
2-Butanone (MEK)	<10.0 *	10.0		ug/L			10/11/13 22:40	
2-Chlorotoluene	<1.00	1.00	0.860	-			10/11/13 22:40	
2-Hexanone	<10.0	10.0		ug/L			10/11/13 22:40	
4-Chlorotoluene	<1.00	1.00	0.840				10/11/13 22:40	
4-Isopropyltoluene	<1.00	1.00	0.310	_			10/11/13 22:40	
4-Methyl-2-pentanone (MIBK)	<10.0	10.0		ug/L			10/11/13 22:40	
Acetone	10.5 J	50.0		ug/L			10/11/13 22:40	
Benzene	<1.00	1.00	0.410	-			10/11/13 22:40	
Bromobenzene	<1.00	1.00	0.800	_			10/11/13 22:40	
Bromoform	<1.00	1.00	0.260				10/11/13 22:40	· · · · · · .
Bromomethane	<2.00	2.00	0.690				10/11/13 22:40	
Carbon disulfide	<10.0	10.0	0.190	•			10/11/13 22:40	
Carbon tetrachloride	<1.00	1.00	0.190				10/11/13 22:40	
Chlorobenzene	<1.00	1.00	0.750	_			10/11/13 22:40	
Chlorobromomethane	<1.00	1.00	0.730	-			10/11/13 22:40	
Chlorodibromomethane	<0.500	0.500	0.320				10/11/13 22:40	
Chloroethane	<2.00	2.00	0.320				10/11/13 22:40	
Chloroform	<1.00	1.00						
			0.340				10/11/13 22:40	
Chloromethane	<2.00	2.00	0.350	-			10/11/13 22:40	
cis-1,2-Dichloroethene	<1.00	1.00	0.810	-			10/11/13 22:40	
cis-1,3-Dichloropropene	<0.400	0.400	0.360				10/11/13 22:40	
Dichlorobromomethane	<0.500	0.500	0.390				10/11/13 22:40	
Dichlorodifluoromethane	<1.00	1.00	0.680				10/11/13 22:40	
Ethyl ether	<1.00	1.00	0.720				10/11/13 22:40	
Ethylbenzene	<1.00	1.00	0.740				10/11/13 22:40	
Ethylene Dibromide	<1.00	1.00	0.730	-			10/11/13 22:40	
Hexachlorobutadiene	<0.400	0.400	0.280	<del>.</del>			10/11/13 22:40	
Isopropyl ether	<10.0	10.0	0.590				10/11/13 22:40	
sopropylbenzene	<1.00	1.00	0.790	_			10/11/13 22:40	
Methyl tert-butyl ether	<1.00	1.00	0.160				10/11/13 22:40	
Methylene Chloride	<1.00	1.00	0.440	-			10/11/13 22:40	
m-Xylene & p-Xylene	<2.00	2.00	0.660	ug/L			10/11/13 22:40	
Naphthalene	<5.00	5.00	0.430	ug/L			10/11/13 22:40	
n-Butylbenzene	<1.00	1.00	0.640	ug/L			10/11/13 22:40	
N-Propylbenzene	<1.00	1.00	0.690	ug/L			10/11/13 22:40	

TestAmerica Buffalo

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TestAmerica Job ID: 480-47378-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: TB-10032013

Lab Sample ID: 480-47378-14 Date Collected: 10/03/13 12:00

Matrix: Water

Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<1.00		1.00	0.760	ug/L			10/11/13 22:40	1
sec-Butylbenzene	<1.00		1.00	0.750	ug/L			10/11/13 22:40	1
Styrene	<1.00		1.00	0.730	ug/L			10/11/13 22:40	1
Tert-amyl methyl ether	<5.00		5.00	0.270	ug/L			10/11/13 22:40	1
Tert-butyl ethyl ether	<5.00		5.00	0.294	ug/L			10/11/13 22:40	1
tert-Butylbenzene	<1.00		1.00	0.810	ug/L			10/11/13 22:40	1
Tetrachloroethene	<1.00		1.00	0.360	ug/L			10/11/13 22:40	1
Tetrahydrofuran	8.26	J	10.0	1.25	ug/L			10/11/13 22:40	1
Toluene	<1.00		1.00	0.510	ug/L			10/11/13 22:40	1
trans-1,2-Dichloroethene	<1.00		1.00	0.900	ug/L			10/11/13 22:40	1
trans-1,3-Dichloropropene	<0.400		0.400	0.370	ug/L			10/11/13 22:40	1
Trichloroethene	<1.00		1.00	0.460	ug/L			10/11/13 22:40	1
Trichlorofluoromethane	<1.00		1.00	0.880	ug/L			10/11/13 22:40	1
Vinyl chloride	<1.00		1.00	0.900	ug/L			10/11/13 22:40	1
Dibromomethane	<1.00		1.00	0.410	ug/L			10/11/13 22:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130			_		10/11/13 22:40	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130					10/11/13 22:40	1
4-Bromofluorobenzene (Surr)	104		70 - 130					10/11/13 22:40	1

Client Sample ID: MW-3R

Date Collected: 10/04/13 09:05

Date Received: 10/08/13 01:25

Lab Sample ID: 480-47378-15

**Matrix: Water** 

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50	ug/L			10/11/13 23:05	10
1,1,1-Trichloroethane	<10.0	10.0	8.20	ug/L			10/11/13 23:05	10
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L			10/11/13 23:05	10
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 23:05	10
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L			10/11/13 23:05	10
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L			10/11/13 23:05	10
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L			10/11/13 23:05	10
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 23:05	10
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L			10/11/13 23:05	10
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 23:05	10
1,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 23:05	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L			10/11/13 23:05	10
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L			10/11/13 23:05	10
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L			10/11/13 23:05	10
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L			10/11/13 23:05	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L			10/11/13 23:05	10
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L			10/11/13 23:05	10
1,3-Dichloropropane	<10.0	10.0	7.50	ug/L			10/11/13 23:05	10
1,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L			10/11/13 23:05	10
1,4-Dioxane	<500	500	93.2	ug/L			10/11/13 23:05	10
2,2-Dichloropropane	<10.0	10.0	4.00	ug/L			10/11/13 23:05	10
2-Butanone (MEK)	<100 *	100	13.2	ug/L			10/11/13 23:05	10
2-Chlorotoluene	<10.0	10.0	8.60	ug/L			10/11/13 23:05	10

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-15

Matrix: Water

Client Sample ID: MW-3R

Date Collected: 10/04/13 09:05 Date Received: 10/08/13 01:25

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
2-Hexanone	<100	100	12.4	ug/L			10/11/13 23:05	1
4-Chlorotoluene	<10.0	10.0	8.40	ug/L			10/11/13 23:05	10
4-Isopropyltoluene	<10.0	10.0	3.10	ug/L			10/11/13 23:05	10
4-Methyl-2-pentanone (MIBK)	<100	100	21.0	ug/L			10/11/13 23:05	10
Acetone	<500	500	30.0	ug/L			10/11/13 23:05	10
Benzene	<10.0	10.0		ug/L			10/11/13 23:05	10
Bromobenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
Bromoform	<10.0	10.0		ug/L			10/11/13 23:05	10
Bromomethane	<20.0	20.0		ug/L			10/11/13 23:05	10
Carbon disulfide	<100	100		ug/L			10/11/13 23:05	10
Carbon tetrachloride	<10.0	10.0		ug/L			10/11/13 23:05	10
Chlorobenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
Chlorobromomethane	<10.0	10.0		ug/L			10/11/13 23:05	10
Chlorodibromomethane	<5.00	5.00		ug/L			10/11/13 23:05	10
Chloroethane	<20.0	20.0		ug/L			10/11/13 23:05	10
Chloroform	<10.0	10.0		ug/L			10/11/13 23:05	10
Chloromethane	<20.0	20.0		ug/L			10/11/13 23:05	10
cis-1,2-Dichloroethene	11.7	10.0		ug/L			10/11/13 23:05	10
cis-1,3-Dichloropropene	<4.00	4.00		ug/L			10/11/13 23:05	10
Dichlorobromomethane	<5.00	5.00		ug/L			10/11/13 23:05	10
Dichlorodifluoromethane	<10.0	10.0		ug/L			10/11/13 23:05	10
Ethyl ether	<10.0	10.0		ug/L			10/11/13 23:05	10
Ethylbenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
Ethylene Dibromide	<10.0	10.0		ug/L			10/11/13 23:05	10
Hexachlorobutadiene	<4.00	4.00		ug/L			10/11/13 23:05	10
Isopropyl ether	<100	100		ug/L			10/11/13 23:05	10
Isopropylbenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
Methyl tert-butyl ether	<10.0	10.0		ug/L			10/11/13 23:05	10
Methylene Chloride	<10.0	10.0		ug/L			10/11/13 23:05	10
m-Xylene & p-Xylene	<20.0	20.0		ug/L			10/11/13 23:05	10
Naphthalene	<50.0	50.0		ug/L			10/11/13 23:05	10
n-Butylbenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
N-Propylbenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
o-Xylene	<10.0	10.0		ug/L			10/11/13 23:05	10
sec-Butylbenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
Styrene	<10.0	10.0		ug/L			10/11/13 23:05	10
Tert-amyl methyl ether	<50.0	50.0		ug/L			10/11/13 23:05	10
Tert-butyl ethyl ether	<50.0	50.0		ug/L			10/11/13 23:05	10
tert-Butylbenzene	<10.0	10.0		ug/L			10/11/13 23:05	10
Tetrachloroethene	10.4	10.0		ug/L			10/11/13 23:05	10
Tetrahydrofuran	<100	100		ug/L			10/11/13 23:05	· · · · · · · · · · · · · · · · · · ·
Toluene	<10.0	10.0		ug/L			10/11/13 23:05	10
trans-1,2-Dichloroethene	<10.0	10.0		ug/L			10/11/13 23:05	10
trans-1,3-Dichloropropene	<4.00	4.00		ug/L			10/11/13 23:05	· · · · · · · · · · · · · · · · · · ·
Trichloroethene	9.70 J	10.0		ug/L ug/L			10/11/13 23:05	10
Trichlorofluoromethane	<10.0	10.0		ug/L ug/L			10/11/13 23:05	10
Vinyl chloride	<10.0	10.0		ug/L ug/L			10/11/13 23:05	
Dibromomethane	<10.0	10.0		ug/L ug/L			10/11/13 23:05	10

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Analyzed

Client Sample ID: MW-3R

Date Received: 10/08/13 01:25

Analyte

Analyte

C11-C22 Aromatics (Adjusted)

Lab Sample ID: 480-47378-15 Date Collected: 10/04/13 09:05

Matrix: Water

Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92	70 - 130		10/11/13 23:05	10
1,2-Dichloroethane-d4 (Surr)	98	70 - 130		10/11/13 23:05	10
4-Bromofluorobenzene (Surr)	103	70 - 130		10/11/13 23:05	10

Toluene-d8 (Surr)	92	70 - 130	10/11/13 23:05	10
1,2-Dichloroethane-d4 (Surr)	98	70 - 130	10/11/13 23:05	10
4-Bromofluorobenzene (Surr)	103	70 - 130	10/11/13 23:05	10
 Method: MA VPH - Massachusetts	- Volatile Petroleum	Hydrocarbons (GC)		

MDL Unit

D

Prepared

Result Qualifier

Result Qualifier

<50.0

Surrogate 2,5-Dibromotoluene (fid)	— %Recovery 0	Qualifier	70 - 130			-	Prepared	Analyzed 10/08/13 19:43	Dil Fac
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 19:43	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 19:43	10
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 19:43	10
Method: MAVPH - Massachuse Analyte	tts - Volatile Petro Result (	•	rocarbons (GC RL	•	Unit	D	Prepared	Analyzed	Dil Fac
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10

2,5-Dibromotoluene (pid)	96	70 - 130					10/08/13 19:43	10
- Method: MA-EPH - Massachuse	tts - Extractable Petroleu	m Hydrocarbons	(GC)					
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Acenaphthene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Acenaphthylene (TSP)	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Anthracene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Benzo[a]anthracene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Benzo[a]pyrene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Benzo[b]fluoranthene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Benzo[g,h,i]perylene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Benzo[k]fluoranthene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Chrysene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Dibenz(a,h)anthracene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Fluoranthene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Fluorene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Indeno[1,2,3-cd]pyrene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Naphthalene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Phenanthrene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
Pyrene	<9.52	9.52	1.90	ug/L		10/11/13 11:32	10/12/13 23:24	1
C11-C22 Aromatics (unadjusted)	16.2 JB	47.6	9.52	ug/L		10/11/13 11:32	10/12/13 23:24	1
C19-C36 Aliphatics	<47.6	47.6	9.52	ug/L		10/11/13 11:32	10/12/13 23:24	1
C9-C18 Aliphatics	21.5 JB	47.6	9.52	ug/L		10/11/13 11:32	10/12/13 23:24	1

Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	25 X	40 - 140	10/11/13 11:32	10/12/13 23:24	1
2-Bromonaphthalene	59	40 - 140	10/11/13 11:32	10/12/13 23:24	1
2-Fluorobiphenyl	95	40 - 140	10/11/13 11:32	10/12/13 23:24	1
o-Terphenyl	52	40 - 140	10/11/13 11:32	10/12/13 23:24	1

RL

50.0

RL Unit

50.0 ug/L

D

Prepared

TestAmerica Buffalo

Analyzed

10/14/13 15:11

Dil Fac

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

**Client Sample ID: MW-3R** 

Lab Sample ID: 480-47378-15

Matrix: Water

Analyzed

10/09/13 13:52

Date Collected: 10/04/13 09:05 Date Received: 10/08/13 01:25

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.000720	J	0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:40	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:40	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:40	1
Barium	0.146		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:40	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:40	1
Nickel	0.00721	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:40	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:40	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:40	1
Arsenic	0.00609	J	0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:40	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:40	1
Zinc	0.112		0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:40	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:40	1
Chromium	0.00123	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:40	1

Client Sample ID: WCMW-3 Lab Sample ID: 480-47378-16

RL

0.000200

MDL Unit

0.000120 mg/L

Prepared

10/09/13 08:15

Date Collected: 10/04/13 10:07 Matrix: Water

Result Qualifier

<0.000200

Date Received: 10/08/13 01:25

Analyte

Mercury

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<10.0	10.0	3.50	ug/L			10/11/13 23:30	10
1,1,1-Trichloroethane	<10.0	10.0	8.20	ug/L			10/11/13 23:30	10
1,1,2,2-Tetrachloroethane	<5.00	5.00	2.10	ug/L			10/11/13 23:30	10
1,1,2-Trichloroethane	<10.0	10.0	2.30	ug/L			10/11/13 23:30	10
1,1-Dichloroethane	<10.0	10.0	3.80	ug/L			10/11/13 23:30	10
1,1-Dichloroethene	<10.0	10.0	2.90	ug/L			10/11/13 23:30	10
1,1-Dichloropropene	<10.0	10.0	7.20	ug/L			10/11/13 23:30	10
1,2,3-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 23:30	10
1,2,3-Trichloropropane	<10.0	10.0	8.90	ug/L			10/11/13 23:30	10
1,2,4-Trichlorobenzene	<10.0	10.0	4.10	ug/L			10/11/13 23:30	10
1,2,4-Trimethylbenzene	<10.0	10.0	7.50	ug/L			10/11/13 23:30	10
1,2-Dibromo-3-Chloropropane	<50.0	50.0	3.90	ug/L			10/11/13 23:30	10
1,2-Dichlorobenzene	<10.0	10.0	7.90	ug/L			10/11/13 23:30	10
1,2-Dichloroethane	<10.0	10.0	2.10	ug/L			10/11/13 23:30	10
1,2-Dichloropropane	<10.0	10.0	7.20	ug/L			10/11/13 23:30	10
1,3,5-Trimethylbenzene	<10.0	10.0	7.70	ug/L			10/11/13 23:30	10
1,3-Dichlorobenzene	<10.0	10.0	7.80	ug/L			10/11/13 23:30	10
1,3-Dichloropropane	<10.0	10.0	7.50	ug/L			10/11/13 23:30	10
1,4-Dichlorobenzene	<10.0	10.0	8.40	ug/L			10/11/13 23:30	1(
1,4-Dioxane	<500	500	93.2	ug/L			10/11/13 23:30	10
2,2-Dichloropropane	<10.0	10.0	4.00	ug/L			10/11/13 23:30	10
2-Butanone (MEK)	<100 *	100	13.2	ug/L			10/11/13 23:30	1(
2-Chlorotoluene	<10.0	10.0	8.60	ug/L			10/11/13 23:30	10
2-Hexanone	<100	100	12.4	ug/L			10/11/13 23:30	10
4-Chlorotoluene	<10.0	10.0	8.40	ug/L			10/11/13 23:30	1(
4-Isopropyltoluene	<10.0	10.0	3.10	ug/L			10/11/13 23:30	10

TestAmerica Buffalo

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Dil Fac

14

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-16

Matrix: Water

**Client Sample ID: WCMW-3** 

Date Collected: 10/04/13 10:07 Date Received: 10/08/13 01:25

4-Bromofluorobenzene (Surr)

Method: 8260C - Volatile Orga Analyte	Result Qualif		MDL	Unit	D Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	<100	100		ug/L		10/11/13 23:30	10
Acetone	<500	500		ug/L ug/L		10/11/13 23:30	10
Benzene	<10.0	10.0		ug/L		10/11/13 23:30	10
Bromobenzene	<10.0	10.0		ug/L		10/11/13 23:30	10
Bromoform	<10.0	10.0		ug/L		10/11/13 23:30	10
Bromomethane	<20.0	20.0		ug/L		10/11/13 23:30	10
Carbon disulfide	<100	100		ug/L		10/11/13 23:30	10
Carbon tetrachloride	<10.0	10.0		ug/L		10/11/13 23:30	10
Chlorobenzene	<10.0	10.0		ug/L		10/11/13 23:30	10
Chlorobromomethane	<10.0	10.0		ug/L		10/11/13 23:30	10
Chlorodibromomethane	<5.00	5.00		ug/L		10/11/13 23:30	10
Chloroethane	<20.0	20.0		ug/L		10/11/13 23:30	10
Chloroform	<10.0	10.0		ug/L		10/11/13 23:30	10
Chloromethane	<20.0	20.0		ug/L		10/11/13 23:30	10
cis-1,2-Dichloroethene	<10.0	10.0		ug/L		10/11/13 23:30	10
cis-1,3-Dichloropropene	<4.00	4.00		ug/L		10/11/13 23:30	10
Dichlorobromomethane	<5.00	5.00		ug/L		10/11/13 23:30	10
Dichlorodifluoromethane	<10.0	10.0		ug/L		10/11/13 23:30	10
Ethyl ether	<10.0	10.0		ug/L		10/11/13 23:30	10
Ethylbenzene	<10.0	10.0		ug/L		10/11/13 23:30	10
Ethylene Dibromide	<10.0	10.0		ug/L		10/11/13 23:30	10
Hexachlorobutadiene	<4.00	4.00		ug/L		10/11/13 23:30	10
Isopropyl ether	<100	100		ug/L		10/11/13 23:30	10
Isopropylbenzene	<10.0	10.0		ug/L		10/11/13 23:30	10
Methyl tert-butyl ether	3.60 J	10.0		ug/L		10/11/13 23:30	10
Methylene Chloride	<10.0	10.0		ug/L		10/11/13 23:30	10
m-Xylene & p-Xylene	<20.0	20.0		ug/L		10/11/13 23:30	10
Naphthalene	<50.0	50.0		ug/L		10/11/13 23:30	10
n-Butylbenzene	<10.0	10.0		ug/L		10/11/13 23:30	10
N-Propylbenzene	<10.0	10.0	6.90			10/11/13 23:30	10
o-Xylene	<10.0	10.0		ug/L		10/11/13 23:30	10
sec-Butylbenzene	<10.0	10.0		ug/L		10/11/13 23:30	10
Styrene	<10.0	10.0		ug/L		10/11/13 23:30	10
Tert-amyl methyl ether	<50.0	50.0	2.70	ug/L		10/11/13 23:30	10
Tert-butyl ethyl ether	<50.0	50.0		ug/L		10/11/13 23:30	10
tert-Butylbenzene	<10.0	10.0	8.10	-		10/11/13 23:30	10
Tetrachloroethene	<10.0	10.0		ug/L		10/11/13 23:30	10
Tetrahydrofuran	<100	100		ug/L		10/11/13 23:30	10
Toluene	<10.0	10.0		ug/L		10/11/13 23:30	10
trans-1,2-Dichloroethene	<10.0	10.0		ug/L		10/11/13 23:30	10
trans-1,3-Dichloropropene	<4.00	4.00		ug/L		10/11/13 23:30	10
Trichloroethene	<10.0	10.0		ug/L		10/11/13 23:30	10
Trichlorofluoromethane	<10.0	10.0		ug/L		10/11/13 23:30	10
Vinyl chloride	11.4	10.0		ug/L		10/11/13 23:30	10
Dibromomethane	<10.0	10.0	4.10	ug/L		10/11/13 23:30	10
Surrogate	%Recovery Qualit	fier Limits			Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93	70 - 130				10/11/13 23:30	10
1,2-Dichloroethane-d4 (Surr)	98	70 - 130				10/11/13 23:30	10

TestAmerica Buffalo

10/11/13 23:30

70 - 130

103

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Analyzed

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**Client Sample ID: WCMW-3** 

Lab Sample ID: 480-47378-16

Matrix: Water

Dil Fac

Date Collected: 10/04/13 10:07 Date Received: 10/08/13 01:25

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Result Qualifier

C5-C8 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
- Method: MAVPH - Massachuse	etts - Volatile Pet	roleum Hyd	Irocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 20:22	10
C9-C10 Aromatics	<50.0		50.0	5.00	ug/L			10/08/13 20:22	10
C9-C12 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/08/13 20:22	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	95		70 - 130			-		10/08/13 20:22	10
2,5-Dibromotoluene (pid)	97		70 <sub>-</sub> 130					10/08/13 20:22	10

MDL Unit

D

Prepared

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Acenaphthene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Acenaphthylene (TSP)	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Anthracene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Benzo[a]anthracene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Benzo[a]pyrene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Benzo[b]fluoranthene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Benzo[g,h,i]perylene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Benzo[k]fluoranthene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Chrysene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Dibenz(a,h)anthracene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Fluoranthene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Fluorene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Indeno[1,2,3-cd]pyrene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Naphthalene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Phenanthrene	2.94	J	9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
Pyrene	<9.75		9.75	1.95	ug/L		10/11/13 11:32	10/12/13 23:53	1
C11-C22 Aromatics (unadjusted)	20.4	JB	48.8	9.75	ug/L		10/11/13 11:32	10/12/13 23:53	1
C19-C36 Aliphatics	15.3	J	48.8	9.75	ug/L		10/11/13 11:32	10/12/13 23:53	1
C9-C18 Aliphatics	10.8	JB	48.8	9.75	ug/L		10/11/13 11:32	10/12/13 23:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			10/14/13 15:11	1
	a/ <b>5</b>	0 ""							

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	34	X	40 - 140	10/11/13 11:32	10/12/13 23:53	1
2-Bromonaphthalene	80		40 - 140	10/11/13 11:32	10/12/13 23:53	1
2-Fluorobiphenyl	93		40 - 140	10/11/13 11:32	10/12/13 23:53	1
o-Terphenyl	63		40 - 140	10/11/13 11:32	10/12/13 23:53	1

Method: 6010 - Metals (ICP)	- Dissolved							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100	0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:43	1
Antimony	<0.00600	0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:43	1
Beryllium	<0.00100	0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:43	1
Barium	0.0463	0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:43	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 10/08/13 01:25

Chromium

TestAmerica Job ID: 480-47378-1

10/09/13 20:43

Client Sample ID: WCMW-3 Lab Sample ID: 480-47378-16

Date Collected: 10/04/13 10:07 **Matrix: Water** 

Method: 6010 - Metals (ICP) - Dissolved (Continued) Result Qualifier RL MDL Unit D Dil Fac Analyte Prepared Analyzed Thallium <0.0100 0.0100 0.0102 10/08/13 08:10 10/09/13 20:43 mg/L 0.0100 0.00126 10/08/13 08:10 10/09/13 20:43 **Nickel** 0.00160 J mg/L Vanadium <0.0100 0.0100 0.00150 mg/L 10/08/13 08:10 10/09/13 20:43 Silver <0.00500 0.00170 10/08/13 08:10 10/09/13 20:43 0.00500 mg/L 0.0100 0.00555 mg/L 10/08/13 08:10 10/09/13 20:43 **Arsenic** 0.00573 J 0.00500 10/08/13 08:10 10/09/13 20:43 Lead < 0.00500 0.00300 mg/L Zinc 0.00514 0.0500 0.00150 mg/L 10/08/13 08:10 10/09/13 20:43 Selenium <0.0100 0.0100 0.00870 10/08/13 08:10 10/09/13 20:43 ma/L 0.00500

Method: 7470A - Mercury (CVAA)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:53	1

0.00100

mg/L

10/08/13 08:10

<0.00500

Client Sample ID: MW-4R Lab Sample ID: 480-47378-17

Date Collected: 10/04/13 11:17 Matrix: Water Date Received: 10/08/13 01:25

Method: 8260C - Volatile Organic Compounds (GC/MS) Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed 1,1,1,2-Tetrachloroethane <10.0 10.0 3.50 ug/L 10/11/13 23:56 10 1.1.1-Trichloroethane <10.0 10.0 10/11/13 23:56 8.20 ug/L 10 1,1,2,2-Tetrachloroethane <5.00 5.00 2.10 10/11/13 23:56 10 ug/L <10.0 10.0 2.30 10/11/13 23:56 10 1.1.2-Trichloroethane ug/L 1,1-Dichloroethane <10.0 10.0 3.80 ug/L 10/11/13 23:56 10 <10.0 10.0 10/11/13 23:56 10 1.1-Dichloroethene 2.90 ug/L 1,1-Dichloropropene <10.0 10.0 7.20 ug/L 10/11/13 23:56 10 1.2.3-Trichlorobenzene <10.0 10.0 4.10 ug/L 10/11/13 23:56 10 1,2,3-Trichloropropane <10.0 10.0 8.90 ug/L 10/11/13 23:56 10 1,2,4-Trichlorobenzene <10.0 10.0 4.10 ug/L 10/11/13 23:56 10 7.50 1,2,4-Trimethylbenzene <10.0 10.0 ug/L 10/11/13 23:56 10 1,2-Dibromo-3-Chloropropane <50.0 50.0 3.90 ug/L 10/11/13 23:56 10 7.90 1.2-Dichlorobenzene <10.0 10.0 ug/L 10/11/13 23:56 10 1,2-Dichloroethane <10.0 10.0 2.10 ug/L 10/11/13 23:56 10 1,2-Dichloropropane <10.0 10.0 7.20 ug/L 10/11/13 23:56 10 1,3,5-Trimethylbenzene <10.0 10.0 7.70 ug/L 10/11/13 23:56 10 <10.0 10.0 10 1.3-Dichlorobenzene 7 80 ug/L 10/11/13 23:56 1,3-Dichloropropane <10.0 10.0 7.50 ug/L 10/11/13 23:56 10 ug/L 1.4-Dichlorobenzene <10.0 10.0 10/11/13 23:56 10 8.40 1,4-Dioxane < 500 500 93.2 ug/L 10/11/13 23:56 10 2,2-Dichloropropane <10.0 10.0 4.00 10/11/13 23:56 10 ug/L 2-Butanone (MEK) <100 100 13.2 ug/L 10/11/13 23:56 10 2-Chlorotoluene <10.0 10.0 8.60 ug/L 10/11/13 23:56 10 <100 2-Hexanone 100 12.4 ug/L 10/11/13 23:56 10 4-Chlorotoluene <10.0 10.0 8.40 ug/L 10/11/13 23:56 10 ug/L 4-Isopropyltoluene <10.0 10.0 3.10 10/11/13 23:56 10 <100 100 4-Methyl-2-pentanone (MIBK) 21.0 ug/L 10/11/13 23:56 10 Acetone < 500 500 30.0 10 ug/L 10/11/13 23:56 Benzene <10.0 10.0 4.10 ug/L 10/11/13 23:56 10 Bromobenzene <10.0 10.0 8.00 ug/L 10/11/13 23:56 10

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-17

Matrix: Water

Client Sample ID: MW-4R

Date Collected: 10/04/13 11:17 Date Received: 10/08/13 01:25

Method: 8260C - Volatile Orga Analyte	Result Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
Bromoform	<10.0	10.0	2.60	ug/L		10/11/13 23:56	10
Bromomethane	<20.0	20.0	6.90	ug/L		10/11/13 23:56	10
Carbon disulfide	<100	100	1.90	ug/L		10/11/13 23:56	10
Carbon tetrachloride	<10.0	10.0	2.70	ug/L		10/11/13 23:56	10
Chlorobenzene	<10.0	10.0	7.50	ug/L		10/11/13 23:56	10
Chlorobromomethane	<10.0	10.0	8.70	ug/L		10/11/13 23:56	10
Chlorodibromomethane	<5.00	5.00	3.20	ug/L		10/11/13 23:56	1(
Chloroethane	<20.0	20.0	3.20	ug/L		10/11/13 23:56	10
Chloroform	<10.0	10.0		ug/L		10/11/13 23:56	10
Chloromethane	<20.0	20.0	3.50	ug/L		10/11/13 23:56	10
cis-1,2-Dichloroethene	<10.0	10.0	8.10	ug/L		10/11/13 23:56	10
cis-1,3-Dichloropropene	<4.00	4.00		ug/L		10/11/13 23:56	10
Dichlorobromomethane	<5.00	5.00	3.90	ug/L		10/11/13 23:56	10
Dichlorodifluoromethane	<10.0	10.0		ug/L		10/11/13 23:56	10
Ethyl ether	<10.0	10.0		ug/L		10/11/13 23:56	10
Ethylbenzene	<10.0	10.0		ug/L		10/11/13 23:56	10
Ethylene Dibromide	<10.0	10.0		ug/L		10/11/13 23:56	10
Hexachlorobutadiene	<4.00	4.00		ug/L		10/11/13 23:56	10
Isopropyl ether	<100	100		ug/L		10/11/13 23:56	
Isopropylbenzene	<10.0	10.0		ug/L		10/11/13 23:56	10
Methyl tert-butyl ether	35.7	10.0		ug/L		10/11/13 23:56	10
Methylene Chloride	<10.0	10.0		ug/L		10/11/13 23:56	 10
m-Xylene & p-Xylene	<20.0	20.0		ug/L		10/11/13 23:56	10
Naphthalene	<b>56.0</b>	50.0		ug/L ug/L		10/11/13 23:56	10
n-Butylbenzene	<10.0	10.0		ug/L ug/L		10/11/13 23:56	
N-Propylbenzene	<10.0	10.0		ug/L ug/L		10/11/13 23:56	10
o-Xylene	<10.0	10.0		ug/L ug/L		10/11/13 23:56	10
	<10.0	10.0		<del>.</del>		10/11/13 23:56	
sec-Butylbenzene	<10.0	10.0		ug/L			10
Styrene		50.0	7.30			10/11/13 23:56	10
Tert-amyl methyl ether	7.92 J			ug/L		10/11/13 23:56	1( 
Tert-butyl ethyl ether	<50.0	50.0		ug/L		10/11/13 23:56	10
tert-Butylbenzene	<10.0	10.0		ug/L		10/11/13 23:56	10
Tetrachloroethene	<10.0	10.0		ug/L		10/11/13 23:56	1(
Tetrahydrofuran	<100	100		ug/L		10/11/13 23:56	10
Toluene	<10.0	10.0		ug/L		10/11/13 23:56	10
trans-1,2-Dichloroethene	<10.0	10.0		ug/L		10/11/13 23:56	1(
trans-1,3-Dichloropropene	<4.00	4.00		ug/L		10/11/13 23:56	10
Trichloroethene	<10.0	10.0		ug/L		10/11/13 23:56	10
Trichlorofluoromethane	<10.0	10.0		ug/L		10/11/13 23:56	
Vinyl chloride	<10.0	10.0		ug/L		10/11/13 23:56	10
Dibromomethane	<10.0	10.0	4.10	ug/L		10/11/13 23:56	10
Surrogate	%Recovery Qualifier	Limits			Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	92	70 - 130				10/11/13 23:56	10
1,2-Dichloroethane-d4 (Surr)	94	70 - 130				10/11/13 23:56	10
4-Bromofluorobenzene (Surr)	104	70 - 130				10/11/13 23:56	10

TestAmerica Buffalo

Analyzed

10/09/13 16:39

Prepared

50.0

MDL Unit

15.0 ug/L

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

C5-C8 Aliphatics (adjusted)

Result Qualifier

<50.0

Dil Fac

## **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-17

Matrix: Water

Date Collected: 10/04/13 11:17 Date Received: 10/08/13 01:25

Client Sample ID: MW-4R

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C12 Aliphatics (adjusted)	<50.0		50.0	15.0	ug/L			10/09/13 16:39	10
Method: MAVPH - Massachusett	ts - Volatile Pet	roleum Hyd	rocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<50.0		50.0	15.0	ug/L			10/09/13 12:11	10
C9-C10 Aromatics	99.0		50.0	5.00	ug/L			10/09/13 12:11	10
C9-C12 Aliphatics (unadjusted)	65.9		50.0	15.0	ug/L			10/09/13 12:11	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)			70 - 130			-		10/09/13 12:11	10
2,5-Dibromotoluene (pid)	106		70 <sub>-</sub> 130					10/09/13 12:11	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	27.1		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Acenaphthene	98.3		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Acenaphthylene (TSP)	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Anthracene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Benzo[a]anthracene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Benzo[a]pyrene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Benzo[b]fluoranthene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Benzo[g,h,i]perylene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Benzo[k]fluoranthene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Chrysene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Dibenz(a,h)anthracene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Fluoranthene	3.88	J	9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Fluorene	43.4		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Indeno[1,2,3-cd]pyrene	<9.55		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Naphthalene	26.4		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Phenanthrene	47.1		9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
Pyrene	2.05	J	9.55	1.91	ug/L		10/11/13 11:32	10/14/13 14:01	1
C11-C22 Aromatics (unadjusted)	561	В	47.7	9.55	ug/L		10/11/13 11:32	10/14/13 14:01	1
C19-C36 Aliphatics	<47.7		47.7	9.55	ug/L		10/11/13 11:32	10/14/13 14:01	1
C9-C18 Aliphatics	84.5	В	47.7	9.55	ug/L		10/11/13 11:32	10/14/13 14:01	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	313		50.0	50.0	ug/L			10/14/13 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	25	X	40 - 140	10/11/13 11:32	10/14/13 14:01	1
2-Bromonaphthalene	80		40 - 140	10/11/13 11:32	10/14/13 14:01	1
2-Fluorobiphenyl	42		40 - 140	10/11/13 11:32	10/14/13 14:01	1
o-Terphenyl	49		40 - 140	10/11/13 11:32	10/14/13 14:01	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/09/13 20:53	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/09/13 20:53	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/09/13 20:53	1
Barium	0.396		0.0100	0.000700	mg/L		10/08/13 08:10	10/09/13 20:53	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/09/13 20:53	1

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## **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Client Sample ID: MW-4R

Lab Sample ID: 480-47378-17

Matrix: Water

Date Collected: 10/04/13 11:17 Date Received: 10/08/13 01:25

Method: 6010 - Metals (I	,	•							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.00230	J	0.0100	0.00126	mg/L		10/08/13 08:10	10/09/13 20:53	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/09/13 20:53	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/09/13 20:53	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/09/13 20:53	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/09/13 20:53	1
Zinc	0.00256	J	0.0500	0.00150	mg/L		10/08/13 08:10	10/09/13 20:53	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/09/13 20:53	1
Chromium	0.00130	J	0.00500	0.00100	mg/L		10/08/13 08:10	10/09/13 20:53	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	ma/L		10/09/13 08:15	10/09/13 14:00	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

		TOL	12DCE	BFB	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	
480-47378-1	WCMW-6	95	94	105	
480-47378-2	WCMW-10	92	94	104	
480-47378-3	WCMW-5	93	94	103	
480-47378-4	WCMW-9	94	94	106	
480-47378-5	WCMW-2	91	95	104	
480-47378-6	WCMW-7	91	95	102	
480-47378-8	MW-2R	91	92	103	
480-47378-9	WCMW-8	92	95	101	
480-47378-10	WCMW-11	91	95	102	
480-47378-11	WCMW-4	90	93	100	
480-47378-12	WCMW-1	92	93	101	
480-47378-13	MW-1R	89	93	100	
480-47378-14	TB-10032013	94	96	104	
480-47378-15	MW-3R	92	98	103	
480-47378-16	WCMW-3	93	98	103	
480-47378-17	MW-4R	92	94	104	
LCS 480-144314/5	Lab Control Sample	92	97	105	
LCSD 480-144314/6	Lab Control Sample Dup	92	97	105	
MB 480-144314/8	Method Blank	92	93	102	

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

## Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

**Matrix: Water** 

		25DBT2	25DBT1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
480-47378-1	WCMW-6	95	98
480-47378-2	WCMW-10	96	97
480-47378-3	WCMW-5	94	97
480-47378-4	WCMW-9	95	98
480-47378-5	WCMW-2	95	96
480-47378-6	WCMW-7	98	99
480-47378-8	MW-2R	96	97
480-47378-9	WCMW-8	94	96
480-47378-10	WCMW-11	94	97
480-47378-11	WCMW-4	94	97
480-47378-12	WCMW-1	91	94
480-47378-13	MW-1R	91	96
480-47378-15	MW-3R	94	96
480-47378-16	WCMW-3	95	97
480-47378-17	MW-4R	110	106
LCS 480-143366/4	Lab Control Sample	100	103
LCS 480-143687/4	Lab Control Sample	100	104
LCSD 480-143366/5	Lab Control Sample Dup	97	100

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Prep Type: Total/NA

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

America 300 ID. 400-47376-1

## Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		25DBT2	25DBT1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCSD 480-143687/5	Lab Control Sample Dup	97	99	
MB 480-143366/3	Method Blank	99	101	
MB 480-143687/3	Method Blank	98	102	
Surrogate Legend				

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Water Prep Type: Total/NA

				Percent Sui	rrogate Reco	very (Acceptan
		1COD2	2BN1	FBP1	OTPH1	
Lab Sample ID C	lient Sample ID	(40-140)	(40-140)	(40-140)	(40-140)	
480-47378-1 V	/CMW-6	45	84	98	71	
480-47378-2 V	/CMW-10	41	89	101	66	
480-47378-3 V	/CMW-5	48	85	101	83	
80-47378-4 V	/CMW-9	35 X	83	101	51	
180-47378-5 V	/CMW-2	29 X	87	103	54	
80-47378-6 V	/CMW-7	46	83	98	74	
180-47378-7 W	/CMW-907	44	83	96	71	
480-47378-8 N	IW-2R	48	86	104	74	
480-47378-9 V	/CMW-8	44	82	96	68	
180-47378-10 V	/CMW-11	46	87	99	67	
180-47378-11 V	/CMW-4	37 X	89	105	74	
180-47378-12 V	/CMW-1	34 X	86	104	73	
180-47378-13 N	IW-1R	34 X	93	105	75	
180-47378-15 N	IW-3R	25 X	59	95	52	
480-47378-16 V	/CMW-3	34 X	80	93	63	
480-47378-17 N	IW-4R	25 X	80	42	49	
LCS 480-144324/2-B L	ab Control Sample	79	84	96	85	
	ab Control Sample Dup	84	91	104	91	
MB 480-144324/1-B N	lethod Blank	89	73	101	90	

#### Surrogate Legend

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

TestAmerica Buffalo

## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

## Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-144314/8

**Matrix: Water** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Analysis Batch: 144314		•••							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.350		<u>-</u> -	Tropulou	10/11/13 15:36	1
1,1,1-Trichloroethane	<1.00		1.00	0.820				10/11/13 15:36	1
1,1,2,2-Tetrachloroethane	<0.500		0.500	0.210				10/11/13 15:36	1
1,1,2-Trichloroethane	<1.00		1.00	0.230				10/11/13 15:36	
1,1-Dichloroethane	<1.00		1.00	0.380				10/11/13 15:36	1
1,1-Dichloroethene	<1.00		1.00	0.290				10/11/13 15:36	1
1,1-Dichloropropene	<1.00		1.00	0.720				10/11/13 15:36	
1,2,3-Trichlorobenzene	<1.00		1.00	0.410				10/11/13 15:36	1
1,2,3-Trichloropropane	<1.00		1.00	0.890				10/11/13 15:36	1
1,2,4-Trichlorobenzene	<1.00		1.00	0.410				10/11/13 15:36	
1,2,4-Trimethylbenzene	<1.00		1.00	0.750				10/11/13 15:36	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00	0.390	-			10/11/13 15:36	1
1,2-Dichlorobenzene	<1.00		1.00	0.790				10/11/13 15:36	
	<1.00		1.00						1
1,2-Dichloroethane				0.210	_			10/11/13 15:36	
1,2-Dichloropropane	<1.00		1.00	0.720	<del></del>			10/11/13 15:36	
1,3,5-Trimethylbenzene	<1.00		1.00	0.770				10/11/13 15:36	1
1,3-Dichlorobenzene	<1.00		1.00	0.780	-			10/11/13 15:36	1
1,3-Dichloropropane	<1.00		1.00	0.750				10/11/13 15:36	1
1,4-Dichlorobenzene	<1.00		1.00	0.840	-			10/11/13 15:36	1
1,4-Dioxane	<50.0		50.0	9.32	-			10/11/13 15:36	1
2,2-Dichloropropane	<1.00		1.00	0.400				10/11/13 15:36	1
2-Butanone (MEK)	<10.0		10.0	1.32	-			10/11/13 15:36	1
2-Chlorotoluene	<1.00		1.00	0.860				10/11/13 15:36	1
2-Hexanone	<10.0		10.0	1.24				10/11/13 15:36	
4-Chlorotoluene	<1.00		1.00	0.840				10/11/13 15:36	1
4-Isopropyltoluene	<1.00		1.00	0.310				10/11/13 15:36	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10				10/11/13 15:36	
Acetone	<50.0		50.0	3.00				10/11/13 15:36	1
Benzene	<1.00		1.00	0.410				10/11/13 15:36	1
Bromobenzene	<1.00		1.00	0.800				10/11/13 15:36	1
Bromoform	<1.00		1.00	0.260	-			10/11/13 15:36	1
Bromomethane	<2.00		2.00	0.690				10/11/13 15:36	1
Carbon disulfide	<10.0		10.0	0.190				10/11/13 15:36	1
Carbon tetrachloride	<1.00		1.00	0.270	ug/L			10/11/13 15:36	1
Chlorobenzene	<1.00		1.00	0.750	•			10/11/13 15:36	1
Chlorobromomethane	<1.00		1.00	0.870				10/11/13 15:36	1
Chlorodibromomethane	<0.500		0.500	0.320	-			10/11/13 15:36	1
Chloroethane	<2.00		2.00	0.320	ug/L			10/11/13 15:36	1
Chloroform	<1.00		1.00	0.340	ug/L			10/11/13 15:36	1
Chloromethane	<2.00		2.00	0.350	ug/L			10/11/13 15:36	1
cis-1,2-Dichloroethene	<1.00		1.00	0.810	ug/L			10/11/13 15:36	1
cis-1,3-Dichloropropene	<0.400		0.400	0.360	<del></del>			10/11/13 15:36	1
Dichlorobromomethane	<0.500		0.500	0.390	ug/L			10/11/13 15:36	1
Dichlorodifluoromethane	<1.00		1.00	0.680	ug/L			10/11/13 15:36	1
Ethyl ether	<1.00		1.00	0.720	ug/L			10/11/13 15:36	1
Ethylbenzene	<1.00		1.00	0.740	ug/L			10/11/13 15:36	1
Ethylene Dibromide	<1.00		1.00	0.730	ug/L			10/11/13 15:36	1
Hexachlorobutadiene	< 0.400		0.400	0.280	ug/L			10/11/13 15:36	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

MB MB

Lab Sample ID: MB 480-144314/8

**Matrix: Water** 

Analysis Batch: 144314

Client Sample ID: Method Blank **Prep Type: Total/NA** 

	1410	1110							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<10.0		10.0	0.590	ug/L			10/11/13 15:36	1
Isopropylbenzene	<1.00		1.00	0.790	ug/L			10/11/13 15:36	1
Methyl tert-butyl ether	<1.00		1.00	0.160	ug/L			10/11/13 15:36	1
Methylene Chloride	<1.00		1.00	0.440	ug/L			10/11/13 15:36	1
m-Xylene & p-Xylene	<2.00		2.00	0.660	ug/L			10/11/13 15:36	1
Naphthalene	<5.00		5.00	0.430	ug/L			10/11/13 15:36	1
n-Butylbenzene	<1.00		1.00	0.640	ug/L			10/11/13 15:36	1
N-Propylbenzene	<1.00		1.00	0.690	ug/L			10/11/13 15:36	1
o-Xylene	<1.00		1.00	0.760	ug/L			10/11/13 15:36	1
sec-Butylbenzene	<1.00		1.00	0.750	ug/L			10/11/13 15:36	1
Styrene	<1.00		1.00	0.730	ug/L			10/11/13 15:36	1
Tert-amyl methyl ether	<5.00		5.00	0.270	ug/L			10/11/13 15:36	1
Tert-butyl ethyl ether	<5.00		5.00	0.294	ug/L			10/11/13 15:36	1
tert-Butylbenzene	<1.00		1.00	0.810	ug/L			10/11/13 15:36	1
Tetrachloroethene	<1.00		1.00	0.360	ug/L			10/11/13 15:36	1
Tetrahydrofuran	<10.0		10.0	1.25	ug/L			10/11/13 15:36	1
Toluene	<1.00		1.00	0.510	ug/L			10/11/13 15:36	1
trans-1,2-Dichloroethene	<1.00		1.00	0.900	ug/L			10/11/13 15:36	1
trans-1,3-Dichloropropene	<0.400		0.400	0.370	ug/L			10/11/13 15:36	1
Trichloroethene	<1.00		1.00	0.460	ug/L			10/11/13 15:36	1
Trichlorofluoromethane	<1.00		1.00	0.880	ug/L			10/11/13 15:36	1
Vinyl chloride	<1.00		1.00	0.900	ug/L			10/11/13 15:36	1
Dibromomethane	<1.00		1.00	0.410	ug/L			10/11/13 15:36	1

MB M

	IVID	MID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92		70 - 130		10/11/13 15:36	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		10/11/13 15:36	1
4-Bromofluorobenzene (Surr)	102		70 - 130		10/11/13 15:36	1

Lab Sample ID: LCS 480-144314/5

**Matrix: Water** 

-	Spike LCS L		LCS		%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	25.0	23.72		ug/L		95	70 - 130
1,1,1-Trichloroethane	25.0	26.28		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.05		ug/L		96	70 - 130
1,1,2-Trichloroethane	25.0	23.76		ug/L		95	70 - 130
1,1-Dichloroethane	25.0	25.99		ug/L		104	70 - 130
1,1-Dichloroethene	25.0	26.93		ug/L		108	70 - 130
1,1-Dichloropropene	25.0	25.92		ug/L		104	70 - 130
1,2,3-Trichlorobenzene	25.0	23.38		ug/L		94	70 - 130
1,2,3-Trichloropropane	25.0	24.03		ug/L		96	70 - 130
1,2,4-Trichlorobenzene	25.0	23.64		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	25.0	23.76		ug/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.33		ug/L		89	70 - 130
1,2-Dichlorobenzene	25.0	23.34		ug/L		93	70 - 130
1,2-Dichloroethane	25.0	24.33		ug/L		97	70 - 130

TestAmerica Buffalo

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Client Sample ID: Lab Control Sample Prep Type: Total/NA

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-144314/5

**Matrix: Water** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
,2-Dichloropropane	25.0	25.73		ug/L		103	70 - 130	
I,3,5-Trimethylbenzene	25.0	23.50		ug/L		94	70 - 130	
1,3-Dichlorobenzene	25.0	23.62		ug/L		94	70 - 130	
I,3-Dichloropropane	25.0	24.12		ug/L		96	70 - 130	
1,4-Dichlorobenzene	25.0	23.32		ug/L		93	70 - 130	
I,4-Dioxane	1000	1240		ug/L		124	70 - 130	
2,2-Dichloropropane	25.0	26.80		ug/L		107	70 - 130	
2-Butanone (MEK)	125	178.0	*	ug/L		142	70 - 130	
2-Chlorotoluene	25.0	29.73		ug/L		119	70 - 130	
2-Hexanone	125	121.3		ug/L		97	70 - 130	
1-Chlorotoluene	25.0	26.94		ug/L		108	70 - 130	
1-Isopropyltoluene	25.0	23.55		ug/L		94	70 - 130	
1-Methyl-2-pentanone (MIBK)	125	115.4		ug/L		92	70 - 130	
Acetone	125	131.4		ug/L		105	70 _ 130	
Benzene	25.0	25.35		ug/L		101	70 _ 130	
Bromobenzene	25.0	24.13		ug/L		97	70 - 130	
Bromoform	25.0	26.89		ug/L		108	70 - 130	
Bromomethane	25.0	25.13		ug/L		101	70 - 130	
Carbon disulfide	25.0	23.75		ug/L		95	70 - 130	
Carbon tetrachloride	25.0	27.20		ug/L		109	70 - 130	
Chlorobenzene	25.0	24.42		ug/L		98	70 - 130	
Chlorobromomethane	25.0	26.69		ug/L		107	70 - 130	
Chlorodibromomethane	25.0	26.01		ug/L		104	70 - 130	
Chloroethane	25.0	26.00		ug/L		104	70 - 130	
Chloroform	25.0	25.41		ug/L		102	70 - 130	
Chloromethane	25.0	23.21		ug/L		93	70 - 130	
cis-1,2-Dichloroethene	25.0	24.82		ug/L		99	70 - 130 70 - 130	
sis-1,3-Dichloropropene	25.0	28.30		ug/L		113	70 - 130	
Dichlorobromomethane	25.0	25.98		ug/L		104	70 - 130	
Dichlorodifluoromethane	50.0	49.26		ug/L		99	70 - 130	
Ethyl ether	25.0	25.84		ug/L		103	70 - 130	
Ethylbenzene	25.0	23.88		ug/L		96	70 - 130	
Ethylene Dibromide	25.0	24.62		ug/L		98	70 - 130 70 - 130	
Hexachlorobutadiene	25.0	24.11		ug/L		96	70 - 130	
	25.0	25.67		ug/L		103	70 - 130	
sopropyl ether sopropylbenzene	25.0					94	70 - 130 70 - 130	
,		23.41		ug/L			70 - 130 70 - 130	
Methyl tert-butyl ether	25.0	26.08		ug/L		104		
Methylene Chloride	25.0	25.72		ug/L		103	70 <sub>-</sub> 130	
n-Xylene & p-Xylene	50.0	48.96		ug/L		98	70 <sub>-</sub> 130	
Naphthalene	25.0	23.19		ug/L		93	70 - 130	
n-Butylbenzene	25.0	23.56		ug/L		94	70 - 130	
N-Propylbenzene	25.0	24.16		ug/L		97	70 <sub>-</sub> 130	
o-Xylene	25.0	24.04		ug/L		96	70 - 130	
sec-Butylbenzene	25.0	23.61		ug/L		94	70 - 130	
Styrene	25.0	24.36		ug/L		97	70 - 130	
Fert-amyl methyl ether	25.0	29.11		ug/L		116	70 - 130	
Γert-butyl ethyl ether	25.0	27.59		ug/L		110	70 - 130	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-144314/5

**Matrix: Water** 

Analysis Batch: 144314

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	25.0	25.56		ug/L		102	70 - 130	
Tetrahydrofuran	125	122.4		ug/L		98	70 _ 130	
Toluene	25.0	23.65		ug/L		95	70 _ 130	
trans-1,2-Dichloroethene	25.0	25.79		ug/L		103	70 - 130	
trans-1,3-Dichloropropene	25.0	25.76		ug/L		103	70 _ 130	
Trichloroethene	25.0	25.49		ug/L		102	70 - 130	
Trichlorofluoromethane	25.0	27.42		ug/L		110	70 _ 130	
Vinyl chloride	25.0	26.06		ug/L		104	70 _ 130	
Dibromomethane	25.0	25.75		ug/L		103	70 - 130	

LCS LCS

Surrogate	%Recovery (	Qualifier	Limits
Toluene-d8 (Surr)	92		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 480-144314/6

**Matrix: Water** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 144314									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	25.0	24.08		ug/L		96	70 - 130	1	20
1,1,1-Trichloroethane	25.0	25.08		ug/L		100	70 - 130	5	20
1,1,2,2-Tetrachloroethane	25.0	22.89		ug/L		92	70 - 130	5	20
1,1,2-Trichloroethane	25.0	23.02		ug/L		92	70 - 130	3	20
1,1-Dichloroethane	25.0	24.73		ug/L		99	70 - 130	5	20
1,1-Dichloroethene	25.0	24.77		ug/L		99	70 - 130	8	20
1,1-Dichloropropene	25.0	25.19		ug/L		101	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	23.50		ug/L		94	70 - 130	1	20
1,2,3-Trichloropropane	25.0	22.94		ug/L		92	70 - 130	5	20
1,2,4-Trichlorobenzene	25.0	23.43		ug/L		94	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	22.77		ug/L		91	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	21.72		ug/L		87	70 - 130	3	20
1,2-Dichlorobenzene	25.0	22.92		ug/L		92	70 - 130	2	20
1,2-Dichloroethane	25.0	23.75		ug/L		95	70 - 130	2	20
1,2-Dichloropropane	25.0	24.59		ug/L		98	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	22.53		ug/L		90	70 - 130	4	20
1,3-Dichlorobenzene	25.0	22.79		ug/L		91	70 - 130	4	20
1,3-Dichloropropane	25.0	23.57		ug/L		94	70 - 130	2	20
1,4-Dichlorobenzene	25.0	22.76		ug/L		91	70 - 130	2	20
1,4-Dioxane	1000	1199		ug/L		120	70 - 130	3	20
2,2-Dichloropropane	25.0	25.18		ug/L		101	70 - 130	6	20
2-Butanone (MEK)	125	174.0	*	ug/L		139	70 - 130	2	20
2-Chlorotoluene	25.0	27.99		ug/L		112	70 - 130	6	20
2-Hexanone	125	119.0		ug/L		95	70 - 130	2	20
4-Chlorotoluene	25.0	25.80		ug/L		103	70 - 130	4	20
4-Isopropyltoluene	25.0	22.76		ug/L		91	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	125	115.5		ug/L		92	70 - 130	0	20
Acetone	125	126.0		ug/L		101	70 - 130	4	20

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-144314/6

**Matrix: Water** 

Analysis Batch: 144314

Client Sample ID: Lab Control Sample Dup

**Prep Type: Total/NA** 

•	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	25.0	24.49	-	ug/L		98	70 - 130	3	20	
Bromobenzene	25.0	23.21		ug/L		93	70 - 130	4	20	
Bromoform	25.0	26.16		ug/L		105	70 - 130	3	20	
Bromomethane	25.0	23.92		ug/L		96	70 - 130	5	20	
Carbon disulfide	25.0	22.61		ug/L		90	70 - 130	5	20	
Carbon tetrachloride	25.0	25.30		ug/L		101	70 - 130	7	20	
Chlorobenzene	25.0	23.61		ug/L		94	70 - 130	3	20	
Chlorobromomethane	25.0	25.93		ug/L		104	70 - 130	3	20	
Chlorodibromomethane	25.0	25.25		ug/L		101	70 - 130	3	20	
Chloroethane	25.0	24.35		ug/L		97	70 - 130	7	20	
Chloroform	25.0	24.28		ug/L		97	70 - 130	5	20	
Chloromethane	25.0	21.82		ug/L		87	70 - 130	6	20	
cis-1,2-Dichloroethene	25.0	24.11		ug/L		96	70 - 130	3	20	
cis-1,3-Dichloropropene	25.0	26.69		ug/L		107	70 - 130	6	20	
Dichlorobromomethane	25.0	25.46		ug/L		102	70 - 130	2	20	
Dichlorodifluoromethane	50.0	45.78		ug/L		92	70 - 130	7	20	
Ethyl ether	25.0	24.79		ug/L		99	70 - 130	4	20	
Ethylbenzene	25.0	23.09		ug/L		92	70 - 130	3	20	
Ethylene Dibromide	25.0	23.72		ug/L		95	70 - 130	4	20	
Hexachlorobutadiene	25.0	23.18		ug/L		93	70 - 130	4	20	
Isopropyl ether	25.0	24.95		ug/L		100	70 - 130	3	20	
Isopropylbenzene	25.0	22.39		ug/L		90	70 - 130	4	20	
Methyl tert-butyl ether	25.0	25.49		ug/L		102	70 - 130	2	20	
Methylene Chloride	25.0	24.42		ug/L		98	70 - 130	5	20	
m-Xylene & p-Xylene	50.0	46.76		ug/L		94	70 - 130	5	20	
Naphthalene	25.0	23.41		ug/L		94	70 - 130	1	20	
n-Butylbenzene	25.0	22.40		ug/L		90	70 - 130	5	20	
N-Propylbenzene	25.0	22.80		ug/L		91	70 - 130	6	20	
o-Xylene	25.0	23.96		ug/L		96	70 - 130	0	20	
sec-Butylbenzene	25.0	22.38		ug/L		90	70 - 130	5	20	
Styrene	25.0	23.74		ug/L		95	70 - 130	3	20	
Tert-amyl methyl ether	25.0	28.34		ug/L		113	70 - 130	3	20	
Tert-butyl ethyl ether	25.0	26.87		ug/L		107	70 - 130	3	20	
tert-Butylbenzene	25.0	21.89		ug/L		88	70 - 130	4	20	
Tetrachloroethene	25.0	24.95		ug/L		100	70 - 130	2	20	
Tetrahydrofuran	125	115.3		ug/L		92	70 - 130	6	20	
Toluene	25.0	22.78		ug/L		91	70 - 130	4	20	
trans-1,2-Dichloroethene	25.0	24.32		ug/L		97	70 - 130	6	20	
trans-1,3-Dichloropropene	25.0	25.17		ug/L		101	70 - 130	2	20	
Trichloroethene	25.0	25.33		ug/L		101	70 - 130	1	20	
Trichlorofluoromethane	25.0	25.51		ug/L		102	70 - 130	7	20	
Vinyl chloride	25.0	24.50		ug/L		98	70 - 130	6	20	
Dibromomethane	25.0	24.54		ug/L		98	70 - 130	5	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	92		70 - 130

1,2-Dichloroethane-d4 (Surr) 97 70 - 130 4-Bromofluorobenzene (Surr) 105 70 - 130

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-143366/3

**Matrix: Water** 

Analysis Batch: 143366

Client Sample ID: Method Blank Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

_	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			10/08/13 08:53	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			10/08/13 08:53	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			10/08/13 08:53	1

MR MR Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 10/08/13 08:53 2,5-Dibromotoluene (fid) 99 70 - 130 70 - 130 10/08/13 08:53 2,5-Dibromotoluene (pid) 101

Lab Sample ID: LCS 480-143366/4

**Matrix: Water** 

Analysis Batch: 143366

	Spike	LCS	LCS			%Rec.		
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits		
C5-C8 Aliphatics (unadjusted)	15.0	14.83		ug/L	99	70 - 130		
C9-C10 Aromatics	5.00	5.135		ug/L	103	70 - 130		
C9-C12 Aliphatics (unadjusted)	15.0	15.13		ug/L	101	70 - 130		
	C5-C8 Aliphatics (unadjusted) C9-C10 Aromatics	Analyte         Added           C5-C8 Aliphatics (unadjusted)         15.0           C9-C10 Aromatics         5.00	Analyte         Added         Result           C5-C8 Aliphatics (unadjusted)         15.0         14.83           C9-C10 Aromatics         5.00         5.135	Analyte         Added C5-C8 Aliphatics (unadjusted)         Result D15.0         Qualifier D15.0           C9-C10 Aromatics         5.00         5.135	Analyte         Added         Result         Qualifier         Unit         D           C5-C8 Aliphatics (unadjusted)         15.0         14.83         ug/L           C9-C10 Aromatics         5.00         5.135         ug/L	Analyte         Added C5-C8 Aliphatics (unadjusted)         Result D15.0         Qualifier Unit Ug/L         D Ug/L         99 Ug/L           C9-C10 Aromatics         5.00         5.135         ug/L         103	Analyte         Added         Result 2004         Qualifier 2004         Unit 2004         Permission 2004         Limits 2004         Permission 2004         Permission 2004         Limits 2004         Permission 200	Analyte         Added         Result C5-C8 Aliphatics (unadjusted)         Qualifier Unit ug/L         Unit ug/L         D 99         70 - 130           C9-C10 Aromatics         5.00         5.135         ug/L         103         70 - 130

LCS LCS %Recovery Qualifier Limits Surrogate 2,5-Dibromotoluene (fid) 100 70 - 130 2,5-Dibromotoluene (pid) 103 70 - 130

Lab Sample ID: LCSD 480-143366/5 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 143366

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
C5-C8 Aliphatics (unadjusted)	 15.0	14.39		ug/L		96	70 - 130	3	25	
C9-C10 Aromatics	5.00	5.039		ug/L		101	70 - 130	2	25	
C9-C12 Aliphatics (unadjusted)	15.0	15.00		ug/L		100	70 - 130	1	25	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,5-Dibromotoluene (fid)	97		70 - 130
2,5-Dibromotoluene (pid)	100		70 - 130

Lab Sample ID: MB 480-143687/3 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 143687

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			10/09/13 09:51	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			10/09/13 09:51	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			10/09/13 09:51	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	98		70 - 130		10/09/13 09:51	1
2,5-Dibromotoluene (pid)	102		70 - 130		10/09/13 09:51	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-143687/4

**Matrix: Water** 

C9-C10 Aromatics

Analyte

Analysis Batch: 143687

C5-C8 Aliphatics (unadjusted)

C9-C12 Aliphatics (unadjusted)

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Spike LCS LCS %Rec. Added Result Qualifier Limits Unit %Rec 15.0 14.99 ug/L 100 70 - 130 ug/L 5.00 5.156 103 70 - 130 15.0 15.17 ug/L 101 70 - 130

LCS LCS Surrogate Qualifier Limits %Recovery 2,5-Dibromotoluene (fid) 100 70 - 130 2,5-Dibromotoluene (pid) 104 70 - 130

Lab Sample ID: LCSD 480-143687/5

**Matrix: Water** 

Analysis Batch: 143687

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

LCSD LCSD RPD Spike %Rec. Limit Analyte Added Result Qualifier Unit D %Rec Limits RPD C5-C8 Aliphatics (unadjusted) 15.0 14.73 98 70 - 130 2 25 ug/L C9-C10 Aromatics 5.00 5.006 ug/L 100 70 - 1303 25 25 C9-C12 Aliphatics (unadjusted) 15.0 14.94 ug/L 100 70 - 130 2

LCSD LCSD %Recovery Qualifier Surrogate Limits 2,5-Dibromotoluene (fid) 97 70 - 130 2,5-Dibromotoluene (pid) 99 70 - 130

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-144324/1-B

**Matrix: Water** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 144342								Prep Batch:	144324
-	МВ	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Acenaphthene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Acenaphthylene (TSP)	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Anthracene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Benzo[a]anthracene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Benzo[a]pyrene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Benzo[b]fluoranthene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Benzo[g,h,i]perylene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Benzo[k]fluoranthene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Chrysene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Dibenz(a,h)anthracene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Fluoranthene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Fluorene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Indeno[1,2,3-cd]pyrene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Naphthalene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Phenanthrene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
Pyrene	<10.0		10.0	2.00	ug/L		10/11/13 11:32	10/12/13 15:01	1
C11-C22 Aromatics (unadjusted)	25.68	J	50.0	10.0	ug/L		10/11/13 11:32	10/12/13 15:01	1
C19-C36 Aliphatics	<50.0		50.0	10.0	ug/L		10/11/13 11:32	10/12/13 15:01	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

MB MB

Lab Sample ID: MB 480-144324/1-B

**Matrix: Water** 

Analysis Batch: 144342

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 144324

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
C9-C18 Aliphatics	20.20 J	50.0	10.0 ug/L		10/11/13 11:32	10/12/13 15:01	1

	MB MB				
Surrogate %	Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	89	40 - 140	10/11/13 11:32	10/12/13 15:01	1
2-Bromonaphthalene	73	40 - 140	10/11/13 11:32	10/12/13 15:01	1
2-Fluorobiphenyl	101	40 - 140	10/11/13 11:32	10/12/13 15:01	1
o-Terphenyl	90	40 - 140	10/11/13 11:32	10/12/13 15:01	1

Lab Sample ID: LCS 480-144324/2-B **Client Sample ID: Lab Control Sample** 

**Matrix: Water** 

Analysis Batch: 144342

Prep Type: Total/NA

Prep Batch: 144324

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2-Methylnaphthalene	50.0	37.97		ug/L		76	40 - 140	
Acenaphthene	50.0	41.58		ug/L		83	40 - 140	
Acenaphthylene (TSP)	50.0	43.29		ug/L		87	40 - 140	
Anthracene	50.0	48.72		ug/L		97	40 - 140	
Benzo[a]anthracene	50.0	47.46		ug/L		95	40 - 140	
Benzo[a]pyrene	50.0	46.89		ug/L		94	40 - 140	
Benzo[b]fluoranthene	50.0	46.99		ug/L		94	40 - 140	
Benzo[g,h,i]perylene	50.0	48.41		ug/L		97	40 - 140	
Benzo[k]fluoranthene	50.0	46.87		ug/L		94	40 - 140	
Chrysene	50.0	47.88		ug/L		96	40 - 140	
Dibenz(a,h)anthracene	50.0	47.72		ug/L		95	40 - 140	
Fluoranthene	50.0	47.14		ug/L		94	40 - 140	
Fluorene	50.0	46.20		ug/L		92	40 - 140	
Indeno[1,2,3-cd]pyrene	50.0	48.13		ug/L		96	40 - 140	
Naphthalene	50.0	34.99		ug/L		70	40 - 140	
Phenanthrene	50.0	48.84		ug/L		98	40 - 140	
Pyrene	50.0	48.46		ug/L		97	40 - 140	
C11-C22 Aromatics (unadjusted)	850	783.6		ug/L		92	40 - 140	
C19-C36 Aliphatics	400	400.4		ug/L		100	40 - 140	

300

270.9

ug/L

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	79		40 - 140
2-Bromonaphthalene	84		40 - 140
2-Fluorobiphenyl	96		40 - 140
o-Terphenyl	85		40 - 140

Lab Sample ID: LCSD 480-144324/3-B

Matrix: Water

C9-C18 Aliphatics

Analysis Batch: 144342

Client Sample ID: Lab Control Sample Dup

40 - 140

90

Prep Type: Total/NA

Prep Batch: 144324

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2-Methylnaphthalene	50.0	41.83		ug/L		84	40 - 140	10	25
Acenaphthene	50.0	45.92		ug/L		92	40 - 140	10	25
Acenaphthylene (TSP)	50.0	46.97		ug/L		94	40 - 140	8	25

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

2

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 480-144324/3-B

Matrix: Water

Analysis Batch: 144342

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Type: Total/NA
Prep Batch: 144324

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Anthracene	50.0	52.99		ug/L		106	40 - 140	8	25
Benzo[a]anthracene	50.0	51.64		ug/L		103	40 - 140	8	25
Benzo[a]pyrene	50.0	51.10		ug/L		102	40 - 140	9	25
Benzo[b]fluoranthene	50.0	50.48		ug/L		101	40 - 140	7	25
Benzo[g,h,i]perylene	50.0	52.86		ug/L		106	40 - 140	9	25
Benzo[k]fluoranthene	50.0	51.64		ug/L		103	40 - 140	10	25
Chrysene	50.0	52.08		ug/L		104	40 - 140	8	25
Dibenz(a,h)anthracene	50.0	52.75		ug/L		106	40 - 140	10	25
Fluoranthene	50.0	51.89		ug/L		104	40 - 140	10	25
Fluorene	50.0	50.34		ug/L		101	40 - 140	9	25
Indeno[1,2,3-cd]pyrene	50.0	52.05		ug/L		104	40 - 140	8	25
Naphthalene	50.0	38.65		ug/L		77	40 - 140	10	25
Phenanthrene	50.0	53.16		ug/L		106	40 - 140	8	25
Pyrene	50.0	52.80		ug/L		106	40 - 140	9	25
C11-C22 Aromatics (unadjusted)	850	855.8		ug/L		101	40 - 140	9	25
C19-C36 Aliphatics	400	401.3		ug/L		100	40 - 140	0	25
C9-C18 Aliphatics	300	269.1		ug/L		90	40 - 140	1	25

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	84		40 - 140
2-Bromonaphthalene	91		40 - 140
2-Fluorobiphenyl	104		40 - 140
o-Terphenyl	91		40 - 140

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-143019/17-B

Matrix: Water

Analysis Batch: 144286

Client Sample ID: Method Blank	
Prep Type: Dissolved	

**Prep Batch: 143362** 

Allalysis Datcii. 144200								i iep batcii.	170002
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.00100		0.00100	0.000500	mg/L		10/08/13 08:10	10/10/13 20:05	1
Antimony	<0.00600		0.00600	0.00679	mg/L		10/08/13 08:10	10/10/13 20:05	1
Beryllium	<0.00100		0.00100	0.000300	mg/L		10/08/13 08:10	10/10/13 20:05	1
Barium	<0.0100		0.0100	0.000700	mg/L		10/08/13 08:10	10/10/13 20:05	1
Thallium	<0.0100		0.0100	0.0102	mg/L		10/08/13 08:10	10/10/13 20:05	1
Nickel	<0.0100		0.0100	0.00126	mg/L		10/08/13 08:10	10/10/13 20:05	1
Vanadium	<0.0100		0.0100	0.00150	mg/L		10/08/13 08:10	10/10/13 20:05	1
Silver	<0.00500		0.00500	0.00170	mg/L		10/08/13 08:10	10/10/13 20:05	1
Arsenic	<0.0100		0.0100	0.00555	mg/L		10/08/13 08:10	10/10/13 20:05	1
Lead	<0.00500		0.00500	0.00300	mg/L		10/08/13 08:10	10/10/13 20:05	1
Zinc	<0.0500		0.0500	0.00150	mg/L		10/08/13 08:10	10/10/13 20:05	1
Selenium	<0.0100		0.0100	0.00870	mg/L		10/08/13 08:10	10/10/13 20:05	1
Chromium	<0.00500		0.00500	0.00100	mg/L		10/08/13 08:10	10/10/13 20:05	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-143019/18-B			Client Sample ID: Lab Control Sample
Matrix: Water			Prep Type: Dissolved
Analysis Batch: 144286			Prep Batch: 143362
	Snika	LCS LCS	%Rec

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cadmium	0.200	0.2054		mg/L		103	80 - 120	
Antimony	0.200	0.2046		mg/L		102	80 - 120	
Beryllium	0.200	0.2132		mg/L		107	80 - 120	
Barium	0.200	0.2000		mg/L		100	80 - 120	
Thallium	0.200	0.2036		mg/L		102	80 - 120	
Nickel	0.200	0.2024		mg/L		101	80 - 120	
Vanadium	0.200	0.2018		mg/L		101	80 - 120	
Silver	0.0500	0.05000		mg/L		100	80 - 120	
Arsenic	0.200	0.2071		mg/L		104	80 - 120	
Lead	0.200	0.2006		mg/L		100	80 - 120	
Zinc	0.200	0.2046		mg/L		102	80 - 120	
Selenium	0.200	0.2043		mg/L		102	80 - 120	
Chromium	0.200	0.2054		mg/L		103	80 - 120	

Lab Sample ID: LCSD 480-143019/31-B Client Sample ID: Lab Control Sample Dup **Prep Type: Dissolved** 

**Matrix: Water** 

Analysis Batch: 144286							Prep I	Batch: 1	43362
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cadmium	0.200	0.2086		mg/L		104	80 - 120	0	20
Antimony	0.200	0.2080		mg/L		104	80 - 120	1	20
Beryllium	0.200	0.2141		mg/L		107	80 - 120	5	20
Barium	0.200	0.2112		mg/L		106	80 - 120	5	20
Thallium	0.200	0.2052		mg/L		103	80 - 120	1	20
Nickel	0.200	0.2056		mg/L		103	80 - 120	1	20
Vanadium	0.200	0.2083		mg/L		104	80 - 120	3	20
Silver	0.0500	0.05140		mg/L		103	80 - 120	4	20
Arsenic	0.200	0.2125		mg/L		106	80 - 120	2	20
Lead	0.200	0.2030		mg/L		101	80 - 120	0	20
Zinc	0.200	0.2115		mg/L		106	80 - 120	6	20
Selenium	0.200	0.2104		mg/L		105	80 - 120	0	20
Chromium	0.200	0.2123		mg/L		106	80 - 120	4	20

Lab Sample ID: 480-47378-6 MS

**Matrix: Water** 

Analysis Batch: 143999

Client Sample ID: WCMW-7 MS
Prep Type: Dissolved
Prep Batch: 143362

7										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cadmium	<0.00100		0.200	0.2169		mg/L		108	75 - 125	
Antimony	<0.00600		0.200	0.2134		mg/L		107	75 - 125	
Beryllium	<0.00100		0.200	0.2061		mg/L		103	75 - 125	
Barium	0.420		0.200	0.6301		mg/L		105	75 <sub>-</sub> 125	
Thallium	<0.0100		0.200	0.2014		mg/L		101	75 - 125	
Nickel	0.00376	J	0.200	0.2118		mg/L		104	75 - 125	
Vanadium	<0.0100		0.200	0.2009		mg/L		100	75 <sub>-</sub> 125	
Silver	<0.00500		0.0500	0.05141		mg/L		103	75 - 125	
Arsenic	<0.0100		0.200	0.2243		mg/L		112	75 - 125	
Lead	<0.00500		0.200	0.2087		mg/L		104	75 - 125	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-47378-6 MS

**Matrix: Water** 

Analysis Batch: 143999

Client Sample ID: WCMW-7 MS **Prep Type: Dissolved** 

**Prep Batch: 143362** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Zinc	0.0130	J	0.200	0.1985		mg/L		93	75 - 125	
Selenium	<0.0100		0.200	0.2239		mg/L		112	75 - 125	
Chromium	0.00176	J	0.200	0.1981		mg/L		98	75 - 125	

Lab Sample ID: 480-47378-6 MSD Client Sample ID: WCMW-7 MSD

**Matrix: Water** 

**Prep Type: Dissolved** 

Analysis Batch: 143999									Prepi	Batch: 1	43362
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Cadmium	<0.00100		0.200	0.2193		mg/L		110	75 - 125	1	20
Antimony	<0.00600		0.200	0.2154		mg/L		108	75 - 125	1	20
Beryllium	<0.00100		0.200	0.2064		mg/L		103	75 - 125	0	20
Barium	0.420		0.200	0.6180		mg/L		99	75 - 125	2	20
Thallium	<0.0100		0.200	0.2044		mg/L		102	75 - 125	1	20
Nickel	0.00376	J	0.200	0.2161		mg/L		106	75 - 125	2	20
Vanadium	<0.0100		0.200	0.2048		mg/L		102	75 - 125	2	20
Silver	<0.00500		0.0500	0.05182		mg/L		104	75 - 125	1	20
Arsenic	<0.0100		0.200	0.2269		mg/L		113	75 - 125	1	20
Lead	<0.00500		0.200	0.2113		mg/L		106	75 - 125	1	20
Zinc	0.0130	J	0.200	0.2035		mg/L		95	75 - 125	2	20
Selenium	<0.0100		0.200	0.2228		mg/L		111	75 - 125	1	20
Chromium	0.00176	J	0.200	0.2025		mg/L		100	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-143629/1-A

**Matrix: Water** 

Analysis Batch: 143802

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 143629** 

	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000120	mg/L		10/09/13 08:15	10/09/13 13:11	1

Lab Sample ID: LCS 480-143629/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 143802 **Prep Batch: 143629** Spike LCS LCS %Rec.

Analyte Added Result Qualifier Limits Unit %Rec 0.0133 0.01252 94 Mercury mg/L 80 - 120

Lab Sample ID: LCSD 480-143629/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 143802 **Prep Batch: 143629** LCSD LCSD Spike %Rec. RPD Added Result Qualifier Limits Limit Analyte Unit %Rec RPD 0.0133 Mercury 0.01182 mg/L 89 80 - 120

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## **QC Sample Results**

Client: Woodard & Curran Inc TestAmerica Job ID: 480-47378-1 Project/Site: Quincy Inervale

Method: 7470A - Mercury (CVAA) (Continued)

<0.000200

Mercury

Lab Sample ID: 480-47378-6 MS				Client Sample ID: WCMW-7 MS
Matrix: Water				Prep Type: Dissolved
Analysis Batch: 143802				Prep Batch: 143629
-	Sample Sample	Spike	MS MS	%Rec.

	Jampie	Janipie	Opike	IVIO	IVIO				/ortec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Mercury	<0.000200		0.00667	0.006383		mg/L		96	75 - 125	
_										

Lab Sample ID: 480-47378-6 MSD								Client Sa	ample ID: \	NCMW-7	7 MSD
Matrix: Water									Prep Ty	pe: Diss	olved
Analysis Batch: 143802									Prep	Batch: 1	43629
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyta	Dogult	Ouglifier	Addad	Dogult	Qualifier	Linit	_ n	9/ Boo	Limita	DDD	Limit

0.006383

mg/L

0.00667

20

75 - 125

## **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

## **GC/MS VOA**

## Analysis Batch: 144314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Total/NA	Water	8260C	
480-47378-2	WCMW-10	Total/NA	Water	8260C	
480-47378-3	WCMW-5	Total/NA	Water	8260C	
480-47378-4	WCMW-9	Total/NA	Water	8260C	
480-47378-5	WCMW-2	Total/NA	Water	8260C	
480-47378-6	WCMW-7	Total/NA	Water	8260C	
480-47378-8	MW-2R	Total/NA	Water	8260C	
480-47378-9	WCMW-8	Total/NA	Water	8260C	
480-47378-10	WCMW-11	Total/NA	Water	8260C	
480-47378-11	WCMW-4	Total/NA	Water	8260C	
480-47378-12	WCMW-1	Total/NA	Water	8260C	
480-47378-13	MW-1R	Total/NA	Water	8260C	
480-47378-14	TB-10032013	Total/NA	Water	8260C	
480-47378-15	MW-3R	Total/NA	Water	8260C	
480-47378-16	WCMW-3	Total/NA	Water	8260C	
480-47378-17	MW-4R	Total/NA	Water	8260C	
LCS 480-144314/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-144314/6	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-144314/8	Method Blank	Total/NA	Water	8260C	

#### **GC VOA**

#### Analysis Batch: 143366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-47378-1	WCMW-6	Total/NA	Water	MAVPH	
480-47378-2	WCMW-10	Total/NA	Water	MAVPH	
480-47378-3	WCMW-5	Total/NA	Water	MAVPH	
480-47378-4	WCMW-9	Total/NA	Water	MAVPH	
480-47378-5	WCMW-2	Total/NA	Water	MAVPH	
480-47378-6	WCMW-7	Total/NA	Water	MAVPH	
480-47378-8	MW-2R	Total/NA	Water	MAVPH	
480-47378-9	WCMW-8	Total/NA	Water	MAVPH	
480-47378-10	WCMW-11	Total/NA	Water	MAVPH	
480-47378-11	WCMW-4	Total/NA	Water	MAVPH	
480-47378-12	WCMW-1	Total/NA	Water	MAVPH	
480-47378-13	MW-1R	Total/NA	Water	MAVPH	
480-47378-15	MW-3R	Total/NA	Water	MAVPH	
480-47378-16	WCMW-3	Total/NA	Water	MAVPH	
LCS 480-143366/4	Lab Control Sample	Total/NA	Water	MAVPH	
LCSD 480-143366/5	Lab Control Sample Dup	Total/NA	Water	MAVPH	
MB 480-143366/3	Method Blank	Total/NA	Water	MAVPH	

## Analysis Batch: 143687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-17	MW-4R	Total/NA	Water	MAVPH	
LCS 480-143687/4	Lab Control Sample	Total/NA	Water	MAVPH	
LCSD 480-143687/5	Lab Control Sample Dup	Total/NA	Water	MAVPH	
MB 480-143687/3	Method Blank	Total/NA	Water	MAVPH	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

GC VOA (Continued)

Analysis Batch: 143830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Total/NA	Water	MA VPH	_
480-47378-2	WCMW-10	Total/NA	Water	MA VPH	
480-47378-3	WCMW-5	Total/NA	Water	MA VPH	
480-47378-4	WCMW-9	Total/NA	Water	MA VPH	
480-47378-5	WCMW-2	Total/NA	Water	MA VPH	
480-47378-6	WCMW-7	Total/NA	Water	MA VPH	
480-47378-8	MW-2R	Total/NA	Water	MA VPH	
480-47378-9	WCMW-8	Total/NA	Water	MA VPH	
480-47378-10	WCMW-11	Total/NA	Water	MA VPH	
480-47378-11	WCMW-4	Total/NA	Water	MA VPH	
480-47378-12	WCMW-1	Total/NA	Water	MA VPH	
480-47378-13	MW-1R	Total/NA	Water	MA VPH	
480-47378-15	MW-3R	Total/NA	Water	MA VPH	
480-47378-16	WCMW-3	Total/NA	Water	MA VPH	
480-47378-17	MW-4R	Total/NA	Water	MA VPH	

GC Semi VOA

**Prep Batch: 144324** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
480-47378-1	WCMW-6	Total/NA	Water	3510C	_
480-47378-2	WCMW-10	Total/NA	Water	3510C	
480-47378-3	WCMW-5	Total/NA	Water	3510C	
480-47378-4	WCMW-9	Total/NA	Water	3510C	
480-47378-5	WCMW-2	Total/NA	Water	3510C	
480-47378-6	WCMW-7	Total/NA	Water	3510C	
480-47378-7	WCMW-907	Total/NA	Water	3510C	
480-47378-8	MW-2R	Total/NA	Water	3510C	
480-47378-9	WCMW-8	Total/NA	Water	3510C	
480-47378-10	WCMW-11	Total/NA	Water	3510C	
480-47378-11	WCMW-4	Total/NA	Water	3510C	
480-47378-12	WCMW-1	Total/NA	Water	3510C	
480-47378-13	MW-1R	Total/NA	Water	3510C	
480-47378-15	MW-3R	Total/NA	Water	3510C	
480-47378-16	WCMW-3	Total/NA	Water	3510C	
480-47378-17	MW-4R	Total/NA	Water	3510C	
LCS 480-144324/2-B	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-144324/3-B	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-144324/1-B	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 144342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Total/NA	Water	MA-EPH	144416
480-47378-2	WCMW-10	Total/NA	Water	MA-EPH	144416
480-47378-3	WCMW-5	Total/NA	Water	MA-EPH	144416
480-47378-4	WCMW-9	Total/NA	Water	MA-EPH	144416
480-47378-5	WCMW-2	Total/NA	Water	MA-EPH	144416
480-47378-6	WCMW-7	Total/NA	Water	MA-EPH	144416
480-47378-7	WCMW-907	Total/NA	Water	MA-EPH	144416
480-47378-9	WCMW-8	Total/NA	Water	MA-EPH	144416
400-47376-9	VVCIVIVV-O	Total/IVA	vvalci	WA-LFTT	144410

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## GC Semi VOA (Continued)

## Analysis Batch: 144342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-10	WCMW-11	Total/NA	Water	MA-EPH	144416
480-47378-11	WCMW-4	Total/NA	Water	MA-EPH	144416
480-47378-12	WCMW-1	Total/NA	Water	MA-EPH	144416
480-47378-13	MW-1R	Total/NA	Water	MA-EPH	144416
480-47378-15	MW-3R	Total/NA	Water	MA-EPH	144416
480-47378-16	WCMW-3	Total/NA	Water	MA-EPH	144416
LCS 480-144324/2-B	Lab Control Sample	Total/NA	Water	MA-EPH	144416
LCSD 480-144324/3-B	Lab Control Sample Dup	Total/NA	Water	MA-EPH	144416
MB 480-144324/1-B	Method Blank	Total/NA	Water	MA-EPH	144416

#### Fraction Batch: 144416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Total/NA	Water	MA EPH Frac	144324
480-47378-2	WCMW-10	Total/NA	Water	MA EPH Frac	144324
480-47378-3	WCMW-5	Total/NA	Water	MA EPH Frac	144324
480-47378-4	WCMW-9	Total/NA	Water	MA EPH Frac	144324
480-47378-5	WCMW-2	Total/NA	Water	MA EPH Frac	144324
480-47378-6	WCMW-7	Total/NA	Water	MA EPH Frac	144324
480-47378-7	WCMW-907	Total/NA	Water	MA EPH Frac	144324
480-47378-8	MW-2R	Total/NA	Water	MA EPH Frac	144324
480-47378-9	WCMW-8	Total/NA	Water	MA EPH Frac	144324
480-47378-10	WCMW-11	Total/NA	Water	MA EPH Frac	144324
480-47378-11	WCMW-4	Total/NA	Water	MA EPH Frac	144324
480-47378-12	WCMW-1	Total/NA	Water	MA EPH Frac	144324
480-47378-13	MW-1R	Total/NA	Water	MA EPH Frac	144324
480-47378-15	MW-3R	Total/NA	Water	MA EPH Frac	144324
480-47378-16	WCMW-3	Total/NA	Water	MA EPH Frac	144324
480-47378-17	MW-4R	Total/NA	Water	MA EPH Frac	144324
LCS 480-144324/2-B	Lab Control Sample	Total/NA	Water	MA EPH Frac	144324
LCSD 480-144324/3-B	Lab Control Sample Dup	Total/NA	Water	MA EPH Frac	144324
MB 480-144324/1-B	Method Blank	Total/NA	Water	MA EPH Frac	144324

## Analysis Batch: 144661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-8	MW-2R	Total/NA	Water	MA-EPH	144416
480-47378-17	MW-4R	Total/NA	Water	MA-EPH	144416

## Analysis Batch: 144815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Total/NA	Water	MA-EPH	
480-47378-2	WCMW-10	Total/NA	Water	MA-EPH	
480-47378-3	WCMW-5	Total/NA	Water	MA-EPH	
480-47378-4	WCMW-9	Total/NA	Water	MA-EPH	
480-47378-5	WCMW-2	Total/NA	Water	MA-EPH	
480-47378-6	WCMW-7	Total/NA	Water	MA-EPH	
480-47378-7	WCMW-907	Total/NA	Water	MA-EPH	
480-47378-8	MW-2R	Total/NA	Water	MA-EPH	
480-47378-9	WCMW-8	Total/NA	Water	MA-EPH	
480-47378-10	WCMW-11	Total/NA	Water	MA-EPH	
180-47378-11	WCMW-4	Total/NA	Water	MA-EPH	
480-47378-12	WCMW-1	Total/NA	Water	MA-EPH	

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10/16/2013

## **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

## GC Semi VOA (Continued)

## Analysis Batch: 144815 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
480-47378-13	MW-1R	Total/NA	Water	MA-EPH
480-47378-15	MW-3R	Total/NA	Water	MA-EPH
480-47378-16	WCMW-3	Total/NA	Water	MA-EPH
480-47378-17	MW-4R	Total/NA	Water	MA-EPH

#### **Metals**

#### Filtration Batch: 143019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-143019/18-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-143019/31-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-143019/17-B	Method Blank	Dissolved	Water	FILTRATION	

#### **Prep Batch: 143362**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Dissolved	Water	3005A	
480-47378-2	WCMW-10	Dissolved	Water	3005A	
480-47378-3	WCMW-5	Dissolved	Water	3005A	
480-47378-4	WCMW-9	Dissolved	Water	3005A	
480-47378-5	WCMW-2	Dissolved	Water	3005A	
480-47378-6	WCMW-7	Dissolved	Water	3005A	
480-47378-6 MS	WCMW-7 MS	Dissolved	Water	3005A	
480-47378-6 MSD	WCMW-7 MSD	Dissolved	Water	3005A	
480-47378-7	WCMW-907	Dissolved	Water	3005A	
480-47378-8	MW-2R	Dissolved	Water	3005A	
480-47378-9	WCMW-8	Dissolved	Water	3005A	
480-47378-10	WCMW-11	Dissolved	Water	3005A	
480-47378-11	WCMW-4	Dissolved	Water	3005A	
480-47378-12	WCMW-1	Dissolved	Water	3005A	
480-47378-13	MW-1R	Dissolved	Water	3005A	
480-47378-15	MW-3R	Dissolved	Water	3005A	
480-47378-16	WCMW-3	Dissolved	Water	3005A	
480-47378-17	MW-4R	Dissolved	Water	3005A	
LCS 480-143019/18-B	Lab Control Sample	Dissolved	Water	3005A	143019
LCSD 480-143019/31-B	Lab Control Sample Dup	Dissolved	Water	3005A	143019
MB 480-143019/17-B	Method Blank	Dissolved	Water	3005A	143019

#### **Prep Batch: 143629**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-47378-1	WCMW-6	Dissolved	Water	7470A	<u> </u>
480-47378-2	WCMW-10	Dissolved	Water	7470A	
480-47378-3	WCMW-5	Dissolved	Water	7470A	
480-47378-4	WCMW-9	Dissolved	Water	7470A	
480-47378-5	WCMW-2	Dissolved	Water	7470A	
480-47378-6	WCMW-7	Dissolved	Water	7470A	
480-47378-6 MS	WCMW-7 MS	Dissolved	Water	7470A	
480-47378-6 MSD	WCMW-7 MSD	Dissolved	Water	7470A	
480-47378-7	WCMW-907	Dissolved	Water	7470A	
480-47378-8	MW-2R	Dissolved	Water	7470A	
480-47378-9	WCMW-8	Dissolved	Water	7470A	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Metals (Continued)** 

## Prep Batch: 143629 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-10	WCMW-11	Dissolved	Water	7470A	
480-47378-11	WCMW-4	Dissolved	Water	7470A	
480-47378-12	WCMW-1	Dissolved	Water	7470A	
480-47378-13	MW-1R	Dissolved	Water	7470A	
480-47378-15	MW-3R	Dissolved	Water	7470A	
480-47378-16	WCMW-3	Dissolved	Water	7470A	
480-47378-17	MW-4R	Dissolved	Water	7470A	
LCS 480-143629/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 480-143629/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 480-143629/1-A	Method Blank	Total/NA	Water	7470A	

#### Analysis Batch: 143802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Dissolved	Water	7470A	143629
480-47378-2	WCMW-10	Dissolved	Water	7470A	143629
480-47378-3	WCMW-5	Dissolved	Water	7470A	143629
480-47378-4	WCMW-9	Dissolved	Water	7470A	143629
480-47378-5	WCMW-2	Dissolved	Water	7470A	143629
480-47378-6	WCMW-7	Dissolved	Water	7470A	143629
480-47378-6 MS	WCMW-7 MS	Dissolved	Water	7470A	143629
480-47378-6 MSD	WCMW-7 MSD	Dissolved	Water	7470A	143629
480-47378-7	WCMW-907	Dissolved	Water	7470A	143629
480-47378-8	MW-2R	Dissolved	Water	7470A	143629
480-47378-9	WCMW-8	Dissolved	Water	7470A	143629
480-47378-10	WCMW-11	Dissolved	Water	7470A	143629
480-47378-11	WCMW-4	Dissolved	Water	7470A	143629
480-47378-12	WCMW-1	Dissolved	Water	7470A	143629
480-47378-13	MW-1R	Dissolved	Water	7470A	143629
480-47378-15	MW-3R	Dissolved	Water	7470A	143629
480-47378-16	WCMW-3	Dissolved	Water	7470A	143629
480-47378-17	MW-4R	Dissolved	Water	7470A	143629
LCS 480-143629/2-A	Lab Control Sample	Total/NA	Water	7470A	143629
LCSD 480-143629/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	143629
MB 480-143629/1-A	Method Blank	Total/NA	Water	7470A	143629

#### Analysis Batch: 143999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-2	WCMW-10	Dissolved	Water	6010	143362
480-47378-3	WCMW-5	Dissolved	Water	6010	143362
480-47378-4	WCMW-9	Dissolved	Water	6010	143362
480-47378-5	WCMW-2	Dissolved	Water	6010	143362
480-47378-6	WCMW-7	Dissolved	Water	6010	143362
480-47378-6 MS	WCMW-7 MS	Dissolved	Water	6010	143362
480-47378-6 MSD	WCMW-7 MSD	Dissolved	Water	6010	143362
480-47378-7	WCMW-907	Dissolved	Water	6010	143362
480-47378-8	MW-2R	Dissolved	Water	6010	143362
480-47378-9	WCMW-8	Dissolved	Water	6010	143362
480-47378-10	WCMW-11	Dissolved	Water	6010	143362
480-47378-11	WCMW-4	Dissolved	Water	6010	143362
480-47378-12	WCMW-1	Dissolved	Water	6010	143362
480-47378-13	MW-1R	Dissolved	Water	6010	143362

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## **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

## **Metals (Continued)**

## Analysis Batch: 143999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-15	MW-3R	Dissolved	Water	6010	143362
480-47378-16	WCMW-3	Dissolved	Water	6010	143362
480-47378-17	MW-4R	Dissolved	Water	6010	143362

## Analysis Batch: 144286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47378-1	WCMW-6	Dissolved	Water	6010	143362
LCS 480-143019/18-B	Lab Control Sample	Dissolved	Water	6010	143362
LCSD 480-143019/31-B	Lab Control Sample Dup	Dissolved	Water	6010	143362
MB 480-143019/17-B	Method Blank	Dissolved	Water	6010	143362

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-47378-1

Matrix: Water

**Client Sample ID: WCMW-6** Date Collected: 10/03/13 08:42

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 17:37	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 11:15	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 16:29	DGB	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:16	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	144286	10/10/13 20:20	AMH	TAL BUF

**Client Sample ID: WCMW-10** Lab Sample ID: 480-47378-2

Date Collected: 10/03/13 09:45 Matrix: Water

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 18:02	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 11:53	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 17:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 16:59	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:18	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 19:52	AMH	TAL BUF

**Client Sample ID: WCMW-5** Lab Sample ID: 480-47378-3

Date Collected: 10/03/13 10:42 Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 18:27	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 12:32	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 17:29	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF

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**Matrix: Water** 

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-47378-3

Matrix: Water

Client Sample ID: WCMW-5 Date Collected: 10/03/13 10:42

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Analysis	7470A		1	143802	10/09/13 13:20	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 19:54	AMH	TAL BUF

Lab Sample ID: 480-47378-4

Lab Sample ID: 480-47378-5

Matrix: Water

Matrix: Water

Date Collected: 10/03/13 10:58 Date Received: 10/08/13 01:25

Client Sample ID: WCMW-9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 18:52	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 13:10	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 17:58	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:21	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 19:57	AMH	TAL BUF

Client Sample ID: WCMW-2

Date Collected: 10/03/13 11:42

Date Received: 10/08/13 01:25

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 19:17	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 13:51	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 18:28	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:27	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:00	AMH	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-47378-6

Matrix: Water

**Client Sample ID: WCMW-7** Date Collected: 10/03/13 12:17

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	144314	10/11/13 19:43	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 14:36	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 18:57	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:28	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:02	AMH	TAL BUF

Client Sample ID: WCMW-907 Lab Sample ID: 480-47378-7

Date Collected: 10/03/13 12:17 **Matrix: Water** Date Received: 10/08/13 01:25

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 19:27	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:36	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:22	AMH	TAL BUF

Client Sample ID: MW-2R Lab Sample ID: 480-47378-8

Date Collected: 10/03/13 12:27 Matrix: Water Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 20:08	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 15:15	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Analysis	MA-EPH		1	144661	10/14/13 13:32	DGB	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:38	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:25	AMH	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-47378-9

Matrix: Water

**Client Sample ID: WCMW-8** Date Collected: 10/03/13 14:07

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 20:33	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 16:31	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 20:56	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:39	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:28	AMH	TAL BUF

**Client Sample ID: WCMW-11** Lab Sample ID: 480-47378-10

Date Collected: 10/03/13 14:20 **Matrix: Water** Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 20:59	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 17:10	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 21:25	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:41	JRK	TAL BUI
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:30	AMH	TAL BUF

Client Sample ID: WCMW-4 Lab Sample ID: 480-47378-11

Date Collected: 10/03/13 14:52 Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 21:24	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 17:48	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 21:54	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-47378-11

Matrix: Water

Client Sample ID: WCMW-4

Date Collected: 10/03/13 14:52 Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Analysis	7470A		1	143802	10/09/13 13:43	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:33	AMH	TAL BUF

Client Sample ID: WCMW-1 Lab Sample ID: 480-47378-12

Matein Water

Matrix: Water

Date Collected: 10/03/13 15:42 Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 21:49	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 18:27	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 22:24	DGB	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:48	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:35	AMH	TAL BUF

Client Sample ID: MW-1R

Date Collected: 10/03/13 15:50

Lab Sample ID: 480-47378-13

Matrix: Water

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 22:15	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 19:05	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 22:53	DGB	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:50	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:38	AMH	TAL BUF

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: TB-10032013

Date Collected: 10/03/13 12:00 Date Received: 10/08/13 01:25

Lab Sample ID: 480-47378-14

Matrix: Water

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Total/NA Analysis 8260C 10/11/13 22:40 PJQ TAL BUF

Lab Sample ID: 480-47378-15

Client Sample ID: MW-3R Date Collected: 10/04/13 09:05 Matrix: Water

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 23:05	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 19:43	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 23:24	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:52	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:40	AMH	TAL BUF

**Client Sample ID: WCMW-3** 

Date Collected: 10/04/13 10:07

Date Received: 10/08/13 01:25

Lab Sample ID: 480-47378-16

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 23:30	PJQ	TAL BUF
Total/NA	Analysis	MAVPH		10	143366	10/08/13 20:22	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144342	10/12/13 23:53	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 13:53	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:43	AMH	TAL BUF

Client Sample ID: MW-4R

Date Collected: 10/04/13 11:17

Date Received: 10/08/13 01:25

Lab	Sample	ID: 4	<del>1</del> 0U-4/	3/0-1/
			Matri	v. Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	144314	10/11/13 23:56	PJQ	TAL BUF

TestAmerica Buffalo

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## **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID: 480-47378-17

Matrix: Water

Client Sample ID: MW-4R Date Collected: 10/04/13 11:17

Date Received: 10/08/13 01:25

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	MAVPH		10	143687	10/09/13 12:11	CMD	TAL BUF
Total/NA	Analysis	MA VPH		10	143830	10/09/13 16:39	GSR	TAL BUF
Total/NA	Fraction	MA EPH Frac			144416	10/11/13 14:49	TRG	TAL BUF
Total/NA	Analysis	MA-EPH		1	144661	10/14/13 14:01	DGB	TAL BUF
Total/NA	Prep	3510C			144324	10/11/13 11:32	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	144815	10/14/13 15:11	DGB	TAL BUF
Dissolved	Prep	7470A			143629	10/09/13 08:15	JRK	TAL BUF
Dissolved	Analysis	7470A		1	143802	10/09/13 14:00	JRK	TAL BUF
Dissolved	Prep	3005A			143362	10/08/13 08:10	SS1	TAL BUF
Dissolved	Analysis	6010		1	143999	10/09/13 20:53	AMH	TAL BUF

#### **Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

## **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

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#### Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority			Certification ID	<b>Expiration Date</b>			
Arkansas DEQ	State Program	6	88-0686	07-06-13 *			
California	NELAP	9	1169CA	09-30-14			
Connecticut	State Program	1	PH-0568	09-30-14			
Florida	NELAP	4	E87672	06-30-14			
Georgia	State Program	4	N/A	03-31-14			
lowa	State Program	7	374	03-15-15			
Kansas	NELAP	7	E-10187	01-31-14			
Kentucky	State Program	4	90029	12-31-13			
Kentucky (UST)	State Program	4	30	04-01-14			
Louisiana	NELAP	6	02031	06-30-14			
Maine	State Program	1	NY00044	12-04-14			
Maryland	State Program	3	294	03-31-14			
Massachusetts	State Program	1	M-NY044	06-30-14			
Michigan	State Program	5	9937	04-01-14			
Minnesota	NELAP	5	036-999-337	12-31-13			
New Hampshire	NELAP	1	2973	09-11-14			
New Jersey	NELAP	2	NY455	06-30-14			
New York	NELAP	2	10026	04-01-14			
North Dakota	State Program	8	R-176	03-31-14			
Oklahoma	State Program	6	9421	08-31-14			
Oregon	NELAP	10	NY200003	06-09-14			
Pennsylvania	NELAP	3	68-00281	07-31-14			
Rhode Island	State Program	1	LAO00328	12-31-13			
Tennessee	State Program	4	TN02970	04-01-14			
Texas	NELAP	6	T104704412-11-2	07-31-14			
USDA	Federal		P330-11-00386	11-22-14			
Virginia	NELAP	3	460185	09-14-14			
Washington	State Program	10	C784	02-10-14			
West Virginia DEP	State Program	3	252	12-31-13			
Wisconsin	State Program	5	998310390	08-31-14			

TestAmerica Buffalo

 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.

## **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-47378-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
MA VPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MAVPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF

#### **Protocol References:**

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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## **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-47378-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-47378-1	WCMW-6	Water	10/03/13 08:42	10/08/13 01:25
480-47378-2	WCMW-10	Water	10/03/13 09:45	10/08/13 01:25
480-47378-3	WCMW-5	Water	10/03/13 10:42	10/08/13 01:25
480-47378-4	WCMW-9	Water	10/03/13 10:58	10/08/13 01:25
480-47378-5	WCMW-2	Water	10/03/13 11:42	10/08/13 01:25
480-47378-6	WCMW-7	Water	10/03/13 12:17	10/08/13 01:25
480-47378-7	WCMW-907	Water	10/03/13 12:17	10/08/13 01:25
480-47378-8	MW-2R	Water	10/03/13 12:27	10/08/13 01:25
480-47378-9	WCMW-8	Water	10/03/13 14:07	10/08/13 01:25
480-47378-10	WCMW-11	Water	10/03/13 14:20	10/08/13 01:25
480-47378-11	WCMW-4	Water	10/03/13 14:52	10/08/13 01:25
480-47378-12	WCMW-1	Water	10/03/13 15:42	10/08/13 01:25
480-47378-13	MW-1R	Water	10/03/13 15:50	10/08/13 01:25
480-47378-14	TB-10032013	Water	10/03/13 12:00	10/08/13 01:25
480-47378-15	MW-3R	Water	10/04/13 09:05	10/08/13 01:25
480-47378-16	WCMW-3	Water	10/04/13 10:07	10/08/13 01:25
480-47378-17	MW-4R	Water	10/04/13 11:17	10/08/13 01:25

Temperature on Receipt



Custody Record							1										
TAL-4124 (1007)		Drink	ing Water?	Yes 🗆	No	,	TH	E LEA	DER	IN ENVI	RONMEN	TAL TEST	NG				
Client		1	et Manager		-						Date			Chain of Co	ustody N	umber	
Address 95 Coclar St. Stc. 100		Teleph	Andrea none Number (A	rea Code	O'CY aVFax/Nun	nher					Lab Num	4/13		2	555	18	
Gity St Ste 100		2	101-275	- 100	77 0	hoe in	100.30		nla.	Can c	Lab Num	ber		2000	1		>
D A State Zip	Code	Site C			Lab Conta	act	y case	CD(=C	OCC	An	alysis (Atta			Page		of	<u>C</u>
Project Name and Location (State)	50950	An	deza Hei	ry	Beck	y M	assi		Λ	moi	re space is	needed)	T T	-			
Contract/Purchase Order/Quote No.	MA	Came	vvaybiii rvumbe	77				1	8	DEP							
Contract/Purchase Order/Quote No.	7,7	1	Matrix			ontaine		7/0/4	- CX3	MaD				Sp Co.	pecial In Inditions	struction of Rec	ns/ eipt
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air Aqueous Sed.	Soil	(i) Ta	HVO3	NaOH ZnAc/ NaOH	Disk H		即年							
LXMW-6	10/3/13	842	X			XX		X		XX				LOOTS	<u> </u>		
WCMW-10	(	945	×		>	(X		X	1	XX				-			C
LXMW-5		1042	×			X		X	1	XX		++-		7110			y for VP
WCMW-9		1058	X		_	(X		X	入	XX				2. Fr	action	1584	arget
WCMW-Z		1142	Х		)	_		X	+	××	++-			Can	ayto	5 ter	EPH I metal
WHW-7		1217	X		1			X	+ +	XX	+						
WMW-7 MS		1717	X	$\top$	X			X									ilteracl
WCMW-7 MSD		1217	X		>			X	H	+				15	Meet	MX S	spike
DCMW-907		1217	×		×			X	1	X			7	MOD!	Cote	x X	The Day
MW-ZR		1227	X		×			_	-	< X							
WCMW -8		1407	X		X			X		X							
IZMW-11	$\checkmark$	1420	X		X	X		X	X	(x							
Possible Hazard Identification  ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant [	☐ Poison B	Unknown	Sample Dispo			61.			12.1	A		480-4	7378 Ch	ain of C	ustody		
Tum Around Time Required			☐ Return To	Client	Disp.	osal B	Lab [	Arch	ive Fo	r	_ Months	longer than 1	month)	7			
24 Hours 48 Hours 7 Days 14 Day	vs 🗌 21 Days	s 🛭 Othe	er Standan	d		quitern	erns (Spec	114) M.C.	PC	ANG W	a E	longer than 1	ol; re	port r	to Gii	2-1/3-	Standa
1. Relinquished By		Date D/7/	Time	-		eiver B		1	-	TA	( Exce	longer than i	EDI	Pate 17	3 17	ime 0:15	5
2. Refinquished By	/	Date 1	13 Time		2. Rece	eived B		RU	1	1110	_		D	ate	(2)	me 100	
3. Relinquished By		Date	time	7	3. Rece	eived B	V	V/V	<i>p</i> 1(	VVV			D	0/8/ ate		me IZS	
Comments																	
							Te	me	0	310	4.7	218	7	157	11		
DISTRIBUTION: WHITE - Returned to Client with Report; C.	ANARY - Stays w	vith the Samo	le: PINK - Field	Conv				1 0			110	1 (	<i>/</i>	سا	41		

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy







# Chain of Custody Record

Temperature on Receipt



Drinking Water? Yes□ No ☑ THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)  Client		Projec	t Man	ager			7									Date	10	Chain o	Custo	ody M	ımher	
Address 95 Cadar St, Ste 100					a	He	rey	,								10/4/13			25	5	19	
Address C 1 C: (1)		Teleph	one N	lumbe	C. r (Area	Code	VFax	Numb	ber							Lab Number						
95 Caplar St, Ste aco		4	101-	275	5-K	700	, a	anever Errolandauran a						mar	. Con	2	1	Page	2	_	S 10	
Providence RI	Cip Code 02903	Site Co	ontaci	11		ľ	Lab C	Contac	ct'						Ana	alysis (Attach list if		T				
Project Name and Location (State)	ceres				vey		Do	cky		las	on	1	6	6	M	e space is needed)		+				
Ourney-Intervale, Quinc	MA	Carnel	. vvay	bill Nui	mbel			/				3	5	(Fa To	位							
Contract/Purchase Order/Quote No.	4, 10,00		_								•	- 17	278	4 3	ta DEP						nstructions/	
				Ma	trix				ontail esen			12	30	3	F			'	zonai	tion:	s of Receipt	
Sample I.D. No. and Description (Containers for each sample may be combined on one lin	Date	Time	Air	Aqueous	Soil		Unpres.	HZSO4	HC/	NaOH	ZnAc/ NaOH	ind/h	15.5	tai	VPH							
DCMW-4	10/3/13	1452		X					X	$\overline{}$		X	-	+	X		$\top$	D	STE			
WMW-1	1	1542		X				X	X			Х	X	X	X			2-	Fre	201	ions only	or V
MW-IR		1550	-	X				X	X			X	X	X	X			2.	Frac	oft	us of tang	et
T3-10032013	V	1200	_	X	$\perp$				X				X					a	rely	tes	& EP	_
MW-3K	10/4/13	905		X	$\perp$			X	X	1		X	X	X	X			3.	Al	ed	solved	nek
WCHW-3		1007		X				X	X			X	X	X	X			1			El Cotte	
MW-4R	1	1117		X		Ц		X	X			X	X	X	X				1			
						$\sqcup$							$\perp$									
			Ш	_							$\sqcup$											
			Ш			Ц				L	Ш	$\perp$	L	118				L				
			Ш	$\perp$													, y - \$ m					
Possible Hazard Identification			Щ							74												
Possible Hazard Identification  ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant	☐ Poison B *	M Unknown			Dispose rn To C		ίλ	Disp	nocal	By I	ъ Г	7 400	him	For		(A fee may be Months longer than 1	assess	ed if sa	mples	are re	etained	
Turn Around Time Required					_							ify) L	AFD	ror _	11 11	ethods regulation	month)	· rac	4-0	121	2.1 1-1-1	
24 Hours 48 Hours 7 Days 14	Days 🗌 21 Day	s 🖾 Ott	her <u>S</u>	fand	dan	d	-				. ,	G	Te	Ke	v 8	Excel with	FAN	Post	10	Ou	757 51	wee
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3. Relinquished By		Date	1.		Time	Y	3.	Rece	eivea	Ву		,,	V C	1	16			[O] Date	210	<u>5</u>	Time	
Comments								35					10			1 71	2					
Comments											T	e	m	D	3	10 4,2 2	.8	7	CF	I		
DISTRIBUTION: WHITE - Returned to Client with Report	· CANARY - Stavs	with the Sam	nle: I	PINK -	Field (	Copy		-				-		1	~	10 112 2	10	_	-		`	

Client: Woodard & Curran Inc

Job Number: 480-47378-1

Login Number: 47378

List Source: TestAmerica Buffalo

List Number: 1 Creator: Kolb, Chris M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	woodard & curran
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-53903-1

Client Project/Site: Quincy Inervale

Revision: 2

For:

Woodard & Curran Inc 40 Shattuck Road Suite 110 Andover, Massachusetts 01810

Attn: Mr. Jarrod Yoder

hasen

Authorized for release by: 2/7/2014 10:44:40 AM

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

·····LINKS ······

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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### **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

### **Qualifiers**

### **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **GC VOA**

#### Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### **GC Semi VOA**

Qualifier	Qualifier Description
Qualifiei	Qualifier Description

В Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Χ Surrogate is outside control limits

#### **Metals**

Qualifier	Qualifier Description
-----------	-----------------------

В Compound was found in the blank and sample.

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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Listed under the "D" column to designate that the result is reported on a dry weight basis

Percent Recovery %R CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DL, RA, RE, IN

DLC Decision level concentration MDA Minimum detectable activity **EDL Estimated Detection Limit** MDC Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin)

Not Calculated NC

Not detected at the reporting limit (or MDL or EDL if shown) ND

**PQL Practical Quantitation Limit** 

QC **Quality Control** RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

	MassDEP Analytical Protocol Certification Form									
Labo	Laboratory Name: TestAmerica Buffalo Project #: 480-53903									
Proje										
This	This form provides certifications for the data set for the following Laboratory Sample ID Number(s):									
	53903 [1-14, <i>*</i>									
Matric	ces:	Groundwater/Surfa		Soil/Sediment $\square$	Drinking Water	Other:				
			Protocols (check		•					
8260		7470/7471 Hg	Mass DEP VPH	8081 Pesticides	7196 Hex Cr	Mass DEP APH				
CAM 8270	SVOC	CAM III B 7010 Metals	CAM IV A  Mass DEP EPH	CAM V B 4 8151 Herbicides	CAM VI B 8330 Explosives	CAM IX A L				
CAM		CAM III C	CAM IV B	CAM V C	CAM VIII A	CAM IX B				
	Metals	6020 Metals CAM III D	8082 PCB CAM V A	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B					
	Affirmative	Responses to Que	stions A through F	are required for "	Presumptive Certainty" st	atus				
Α		served (including ter			d on the Chain-of-Custody, d prepared/analyzed within	Yes No				
В	Were the and protocol(s) for	•	nd all associated Q0	C requirements spec	cified in the selected CAM	Yes No				
С		uired corrective action and in the mented for all in the mented fo	•	•	ecified in the selected CAM nformances?	Yes No				
D			•		pecified in CAM VII A, and Reporting of Analytical	Yes No				
Е	modification(	I and APH Methods (s)? (Refer to the inc	dividual method(s) for	or a list of significan	t modifications).	Yes No				
		TO-15 Methods only			onformances identified and	Yes No				
F					stions A through E)?	Yes No				
	Respons	ses to Questions G	6, H and I below are	e required for "Pre	sumptive Certainty" status	3				
G	protocol(s)?	porting limits at or be	·			□ <sub>Yes</sub> ■ No <sup>1</sup>				
	<u>Data User I</u>				not necessarily meet the data . 1056 (2)(k) and WCS-07-350					
Н	Were <b>all</b> QC	performance stand	ards specified in the	e CAM protocol(s) a	chieved?	Yes No <sup>1</sup>				
I	Were results	reported for the co	mplete analyte list s	pecified in the selec	eted CAM protocol(s) ?	Yes No <sup>1</sup>				
1 All ne	•	ust be addressed in an attac		•	, , , ,					
obtair	I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.									
Signa	ture:	0::0		Position:	Technical Director, Test	America Westfield				
Printe	d Name:	Richard	Emerich	Date:	2/5/14 16	:26				
This form	n has been electror	nically signed and approved.		=						

### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-53903-1

#### Job ID: 480-53903-1

#### Laboratory: TestAmerica Buffalo

#### Narrative

Revised report: per client request changed units for metals reporting. Also changed formatter for reporting data. This report replaces final report dated 2/5/14.

#### Receipt

The samples were received on 1/29/2014 at 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.2° C, 2.2° C, 2.4° C and 2.7° C.

#### **Receipt Notes and Exceptions**

The client requested a formatter change at 4:21PM on the due date.

#### GC/MS VOA

Method 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-dibromo-3-chloropropane, Carbon Disulfide, Isopropyl Ether, Naphthalene, tert-Butyl Ethyl Ether, tert-Amyl Methyl Ether and Tetrahydrofuran.

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-3R (480-53903-13), WCMW-10 (480-53903-16), WCMW-9 (480-53903-14), MW-1R (480-53903-2), MW-2R (480-53903-6), MW-4R (480-53903-5), WCMW-11 (480-53903-1), WCMW-2 (480-53903-9), WCMW-5 (480-53903-8) and WCMW-6 (480-53903-7). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: WCMW-7 (480-53903-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) 1,4-Dioxane associated with batches 163849 and 164048 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batches 163849 and 163954exceeded control limits for the following analyte: Tetrahyrodfuran. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batches 163849 and 164048 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample.

No other analytical or quality issues were noted.

#### **GC VOA**

Method MAVPH: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-4R (480-53903-5). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC Semi VOA

Method MA-EPH: Surrogate recovery for the following sample was outside control limits: MW-4R (480-53903-5), MW-1R (480-53903-2), MW-3R (480-53903-13), WCMW-10 (480-53903-16), WCMW-11 (480-53903-1), WCMW-2 (480-53903-9), WCMW-3 (480-53903-12), WCMW-5 (480-53903-8), WCMW-6 (480-53903-7), WCMW-7 (480-53903-3), WCMW-9 (480-53903-14), WCMW-907 (480-53903-4), and MW-2R (480-53903-6). Non-chromatographic evidence of matrix interference was present so re-extraction and/or re-analysis was not performed. Refer to the QC report for details.

No other analytical or quality issues were noted.

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### **Case Narrative**

TestAmerica Job ID: 480-53903-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Job ID: 480-53903-1 (Continued)

### Laboratory: TestAmerica Buffalo (Continued)

#### Metals

Method 6010: The Method Blank for batch 163657 contained soluble zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL) so re-extraction and/or re-analysis of samples MW-1R (480-53903-2), WCMW-10 (480-53903-16), WCMW-5 (480-53903-8), WCMW-7 (480-53903-3), WCMW-907 (480-53903-4), (480-53903-5 PDS), (480-53903-5 SD), MW-2R (480-53903-6), MW-3R (480-53903-13), MW-4R (480-53903-5), MW-4R MS (480-53903-5 MS), MW-4R MSD (480-53903-5 MSD), WCMW-1 (480-53903-11), WCMW-11 (480-53903-1), WCMW-2 (480-53903-9), WCMW-3 (480-53903-12), WCMW-4 (480-53903-10), WCMW-6 (480-53903-7) and WCMW-8 (480-53903-17) was not performed.

No other analytical or quality issues were noted.

#### **Organic Prep**

Method 3510C/MAEPH: After hexane exchanging the following sample extracts, in preparation for fractionation, the extracts formed a white precipitate. The entire extract, including the precipitate, was applied to the fractionation column and the extraction procedure continued for the following samples: MW-1R (480-53903-2), MW-2R (480-53903-6), MW-3R (480-53903-13), MW-4R (480-53903-5), WCMW-1 (480-53903-11), WCMW-10 (480-53903-16), WCMW-11 (480-53903-1), WCMW-2 (480-53903-9), WCMW-3 (480-53903-12), WCMW-4 (480-53903-10), WCMW-5 (480-53903-8), WCMW-6 (480-53903-7), WCMW-7 (480-53903-3), WCMW-8 (480-53903-17), WCMW-9 (480-53903-14) and WCMW-907 (480-53903-4).

No other analytical or quality issues were noted.

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TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-2

Lab Sample ID: 480-53903-4

Lab Sample ID: 480-53903-5

Dissolved

Dissolved

6010

6010

1

Client Sample ID: WCMW-11							Lab Sample ID: 480-5390				
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type		
Tetrachloroethene	9.11		5.00	1.80	ug/L		_	8260C	Total/NA		
C5-C8 Aliphatics (unadjusted)	1.79	J	5.00	1.50	ug/L	1		MAVPH	Total/NA		
C11-C22 Aromatics (unadjusted)	14.9	JB	47.3	9.47	ug/L	1		MA-EPH	Total/NA		

Barium 48.4 10.0 0.700 ug/L 6010 Dissolved Nickel 10.0 1.26 ug/L 6010 Dissolved 11.4 Zinc 374 B 50.0 1.50 ug/L 6010 Dissolved

Client Sample ID: MW-1R

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	15.5 JB	47.7	9.55 ug/L		MA-EPH	Total/NA
C9-C18 Aliphatics	23.6 J	47.7	9.55 ug/L	1	MA-EPH	Total/NA
Barium	94.7	10.0	0.700 ug/L	1	6010	Dissolved
Nickel	4 30 I	10.0	1.26 µg/l	1	6010	Dissolved

1.92 J

7.64 JB

CI

Vanadium

Zinc

Client Sample ID: WCMW-7	Lab Sample ID: 480-53903-3

10.0

50.0

1.50 ug/L

1.50 ug/L

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	109		2.00	1.62	ug/L		_	8260C	Total/NA
Methyl tert-butyl ether	2.00		2.00	0.320	ug/L	2		8260C	Total/NA
Trichloroethene	7.53		2.00	0.920	ug/L	2		8260C	Total/NA
Vinyl chloride	3.66		2.00	1.80	ug/L	2		8260C	Total/NA
C5-C8 Aliphatics (adjusted)	1.93	J	5.00	1.50	ug/L	1		MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	4.15	J	5.00	1.50	ug/L	1		MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	15.6	JB	47.3	9.46	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	17.4	JB	47.3	9.46	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	12.4	J	47.3	9.46	ug/L	1		MA-EPH	Total/NA
Barium	297		10.0	0.700	ug/L	1		6010	Dissolved
Nickel	4.57	J	10.0	1.26	ug/L	1		6010	Dissolved
Vanadium	1.72	J	10.0	1.50	ug/L	1		6010	Dissolved
Zinc	6.32	JB	50.0	1.50	ug/L	1		6010	Dissolved

Client Sample ID: WCMW-907

_									
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	15.2	JB	47.4	9.48	ug/L		_	MA-EPH	Total/NA
C9-C18 Aliphatics	18.4	J	47.4	9.48	ug/L	1		MA-EPH	Total/NA
Barium	304		10.0	0.700	ug/L	1		6010	Dissolved
Vanadium	1.99	J	10.0	1.50	ug/L	1		6010	Dissolved
Zinc	5 37	IR	50.0	1 50	ua/l	1		6010	Dissolved

Client Sample ID: MW-4R

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	20.4		5.00	0.800	ug/L	5	_	8260C	Total/NA
Naphthalene	44.5		25.0	2.15	ug/L	5		8260C	Total/NA
Tert-amyl methyl ether	3.00	J	25.0	1.35	ug/L	5		8260C	Total/NA
Tetrachloroethene	3.79	J	5.00	1.80	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Job ID: 480-53903-1

Client Sample ID: MW-4R (Continued)

Lab Sample ID: 480-53903-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (unadjusted)	9.95	J	25.0	7.50	ug/L		_	MAVPH	Total/NA
C9-C10 Aromatics	57.4		25.0	2.50	ug/L	5		MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	41.0		25.0	7.50	ug/L	5		MAVPH	Total/NA
2-Methylnaphthalene	4.81	J	9.53	1.91	ug/L	1		MA-EPH	Total/NA
Acenaphthene	26.6		9.53	1.91	ug/L	1		MA-EPH	Total/NA
Fluoranthene	2.12	J	9.53	1.91	ug/L	1		MA-EPH	Total/NA
Fluorene	22.0		9.53	1.91	ug/L	1		MA-EPH	Total/NA
Naphthalene	5.76	J	9.53	1.91	ug/L	1		MA-EPH	Total/NA
Phenanthrene	26.5		9.53	1.91	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	233	В	47.7	9.53	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	181		47.7	9.53	ug/L	1		MA-EPH	Total/NA
Barium	273		10.0	0.700	ug/L	1		6010	Dissolved
Nickel	4.75	J	10.0	1.26	ug/L	1		6010	Dissolved
Zinc	85.6	В	50.0	1.50	ug/L	1		6010	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (Adjusted)	145		50.0	50.0	ug/L		_	MA-EPH	Total/NA

Client Sample ID: MW-2R

Lab Sample ID: 480-53903-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.13	J	5.00	4.05	ug/L	5	_	8260C	Total/NA
Naphthalene	14.7	J	25.0	2.15	ug/L	5		8260C	Total/NA
Tetrachloroethene	4.40	J	5.00	1.80	ug/L	5		8260C	Total/NA
Vinyl chloride	5.19		5.00	4.50	ug/L	5		8260C	Total/NA
C5-C8 Aliphatics (unadjusted)	2.16	J	5.00	1.50	ug/L	1		MAVPH	Total/NA
C9-C10 Aromatics	3.14	J	5.00	0.500	ug/L	1		MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	2.31	J	5.00	1.50	ug/L	1		MAVPH	Total/NA
Acenaphthene	3.27	J	9.50	1.90	ug/L	1		MA-EPH	Total/NA
Fluorene	4.28	J	9.50	1.90	ug/L	1		MA-EPH	Total/NA
Phenanthrene	5.05	J	9.50	1.90	ug/L	1		MA-EPH	Total/NA
C11-C22 Aromatics (unadjusted)	37.1	JB	47.5	9.50	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	56.9		47.5	9.50	ug/L	1		MA-EPH	Total/NA
Barium	81.0		10.0	0.700	ug/L	1		6010	Dissolved
Nickel	4.55	J	10.0	1.26	ug/L	1		6010	Dissolved
Zinc	66.0	В	50.0	1.50	ug/L	1		6010	Dissolved

Client Sample ID: WCMW-6

Lab Sample ID: 480-53903-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	4.23	J	5.00	1.50	ug/L	1	_	MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	5.99		5.00	1.50	ug/L	1		MAVPH	Total/NA
C9-C10 Aromatics	0.506	J	5.00	0.500	ug/L	1		MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	17.9	JВ	47.4	9.47	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	15.5	J	47.4	9.47	ug/L	1		MA-EPH	Total/NA
Barium	187		10.0	0.700	ug/L	1		6010	Dissolved
Cadmium	6.52		1.00	0.500	ug/L	1		6010	Dissolved
Nickel	42.1		10.0	1.26	ug/L	1		6010	Dissolved
Zinc	2200	В	50.0	1.50	ug/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

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**Client Sample ID: WCMW-5** 

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Chlorobenzene	8.00		5.00	3.75	ug/L	5	8260C	Total/NA
Methyl tert-butyl ether	12.0		5.00	0.800	ug/L	5	8260C	Total/NA
C5-C8 Aliphatics (unadjusted)	3.59	J	5.00	1.50	ug/L	1	MAVPH	Total/NA
C9-C10 Aromatics	3.58	J	5.00	0.500	ug/L	1	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	4.21	J	5.00	1.50	ug/L	1	MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	16.6	JB	47.7	9.55	ug/L	1	MA-EPH	Total/NA
C19-C36 Aliphatics	16.9	JB	47.7	9.55	ug/L	1	MA-EPH	Total/NA
C9-C18 Aliphatics	10.0	J	47.7	9.55	ug/L	1	MA-EPH	Total/NA
Barium	287		10.0	0.700	ug/L	1	6010	Dissolved
Nickel	1.75	J	10.0	1.26	ug/L	1	6010	Dissolved
Zinc	21.9	JB	50.0	1.50	ug/L	1	6010	Dissolved

Client Sample ID: WCMW-2 Lab Sample ID: 480-53903-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D N	<b>Method</b>	Prep Type
1,3-Dichlorobenzene	8.32		5.00	3.90	ug/L	5	_ 8	3260C	Total/NA
Methyl tert-butyl ether	2.57	J	5.00	0.800	ug/L	5	8	3260C	Total/NA
C5-C8 Aliphatics (unadjusted)	3.91	J	5.00	1.50	ug/L	1	Ν	MAVPH	Total/NA
C9-C10 Aromatics	8.04		5.00	0.500	ug/L	1	N	MAVPH	Total/NA
C9-C12 Aliphatics (unadjusted)	3.43	J	5.00	1.50	ug/L	1	Ν	MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	15.9	JB	51.8	10.4	ug/L	1	Ν	ЛА-ЕРН	Total/NA
Arsenic	7.22	J	10.0	5.55	ug/L	1	6	6010	Dissolved
Barium	99.4		10.0	0.700	ug/L	1	6	6010	Dissolved
Cadmium	0.640	J	1.00	0.500	ug/L	1	6	6010	Dissolved
Nickel	5.72	J	10.0	1.26	ug/L	1	6	6010	Dissolved
Zinc	57.7	В	50.0	1.50	ug/L	1	6	6010	Dissolved
Lead	4.72	J	5.00	3.00	ug/L	1	6	6010	Dissolved
Antimony	26.2		6.00	6.79	ug/L	1	6	8010	Dissolved

Client Sample ID: WCMW-4 Lab Sample ID: 480-53903-10

Analyte	Result C	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.72		1.00	0.360	ug/L	1	_	8260C	Total/NA
Trichloroethene	0.479 J	J	1.00	0.460	ug/L	1		8260C	Total/NA
C11-C22 Aromatics (unadjusted)	16.6 J	JB	47.8	9.56	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	12.7 J	JB	47.8	9.56	ug/L	1		MA-EPH	Total/NA
Barium	53.7		10.0	0.700	ug/L	1		6010	Dissolved
Cadmium	1.97		1.00	0.500	ug/L	1		6010	Dissolved
Nickel	50.2		10.0	1.26	ug/L	1		6010	Dissolved
Zinc	636 E	3	50.0	1.50	ug/L	1		6010	Dissolved

Client Sample ID: WCMW-1 Lab Sample ID: 480-53903-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.32		1.00	0.360	ug/L	1	_	8260C	Total/NA
Trichloroethene	0.746	J	1.00	0.460	ug/L	1		8260C	Total/NA
C11-C22 Aromatics (unadjusted)	13.9	JB	48.9	9.77	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	27.8	JB	48.9	9.77	ug/L	1		MA-EPH	Total/NA
Barium	58.3		10.0	0.700	ug/L	1		6010	Dissolved
Cadmium	0.940	J	1.00	0.500	ug/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

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TestAmerica Job ID: 480-53903-1

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Client Sample ID: WCMW-1 (Continued)

Lab Sample ID: 480-53903-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	P	rep Type
Nickel	47.7		10.0	1.26	ug/L	1	_	6010	D	oissolved
Zinc	51.4	В	50.0	1.50	ug/L	1		6010	D	Dissolved

Client Sample ID: WCMW-3

Lab Sample ID: 480-53903-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	3.50		1.00	0.360	ug/L	1	_	8260C	Total/NA
Trichloroethene	1.03		1.00	0.460	ug/L	1		8260C	Total/NA
C11-C22 Aromatics (unadjusted)	17.6	JB	47.5	9.51	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	18.3	JB	47.5	9.51	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	13.1	J	47.5	9.51	ug/L	1		MA-EPH	Total/NA
Barium	51.7		10.0	0.700	ug/L	1		6010	Dissolved
Cadmium	0.700	J	1.00	0.500	ug/L	1		6010	Dissolved
Nickel	9.46	J	10.0	1.26	ug/L	1		6010	Dissolved
Zinc	261	В	50.0	1.50	ug/L	1		6010	Dissolved

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Client Sample ID: MW-3R

Lab Sample ID: 480-53903-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	7.92		5.00	1.80	ug/L		_	8260C	Total/NA
Trichloroethene	4.08	J	5.00	2.30	ug/L	5		8260C	Total/NA
C5-C8 Aliphatics (unadjusted)	2.17	J	5.00	1.50	ug/L	1		MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	17.2	JВ	47.7	9.53	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	22.9	JB	47.7	9.53	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	19.5	J	47.7	9.53	ug/L	1		MA-EPH	Total/NA
Barium	72.0		10.0	0.700	ug/L	1		6010	Dissolved
Cadmium	2.94		1.00	0.500	ug/L	1		6010	Dissolved
Nickel	10.3		10.0	1.26	ug/L	1		6010	Dissolved
Zinc	481	В	50.0	1.50	ug/L	1		6010	Dissolved

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Client Sample ID: WCMW-9

Lab Sample ID: 480-53903-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	9.61		5.00	1.80	ug/L		_	8260C	Total/NA
Trichloroethene	3.70	J	5.00	2.30	ug/L	5		8260C	Total/NA
C5-C8 Aliphatics (adjusted)	1.83	J	5.00	1.50	ug/L	1		MA VPH	Total/NA
C5-C8 Aliphatics (unadjusted)	3.33	J	5.00	1.50	ug/L	1		MAVPH	Total/NA
C9-C10 Aromatics	1.74	J	5.00	0.500	ug/L	1		MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	15.2	JB	47.5	9.50	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	22.0	JВ	47.5	9.50	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	10.9	J	47.5	9.50	ug/L	1		MA-EPH	Total/NA
Arsenic	8.15	J	10.0	5.55	ug/L	1		6010	Dissolved
Barium	176		10.0	0.700	ug/L	1		6010	Dissolved
Cadmium	1.70		1.00	0.500	ug/L	1		6010	Dissolved
Nickel	24.2		10.0	1.26	ug/L	1		6010	Dissolved
Zinc	666	В	50.0	1.50	ug/L	1		6010	Dissolved

Client Sample ID: TB-01272014

Lab Sample ID: 480-53903-15

This Detection Summary does not include radiochemical test results.

### **Detection Summary**

RL

50.0

MDL Unit

3.00 ug/L

Result Qualifier

4.68 J

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Analyte

Acetone

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-15

Lab Sample ID: 480-53903-16

Lab Sample ID: 480-53903-17

Prep Type

Total/NA

Dil Fac D Method

8260C

Client Sample ID: WCMW-10

Client Sample ID: TB-01272014 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C11-C22 Aromatics (unadjusted)	10.8	JB	47.4	9.48	ug/L	1	_	MA-EPH	Total/NA
Barium	153		10.0	0.700	ug/L	1		6010	Dissolved
Nickel	6.17	J	10.0	1.26	ug/L	1		6010	Dissolved
Zinc	16.5	JB	50.0	1.50	ug/L	1		6010	Dissolved

### Client Sample ID: WCMW-8

- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.96		1.00	0.810	ug/L		_	8260C	Total/NA
Tetrachloroethene	1.97		1.00	0.360	ug/L	1		8260C	Total/NA
Trichloroethene	2.26		1.00	0.460	ug/L	1		8260C	Total/NA
C5-C8 Aliphatics (unadjusted)	2.06	J	5.00	1.50	ug/L	1		MAVPH	Total/NA
C11-C22 Aromatics (unadjusted)	15.4	JB	48.0	9.59	ug/L	1		MA-EPH	Total/NA
C19-C36 Aliphatics	16.4	JB	48.0	9.59	ug/L	1		MA-EPH	Total/NA
C9-C18 Aliphatics	17.3	J	48.0	9.59	ug/L	1		MA-EPH	Total/NA
Barium	179		10.0	0.700	ug/L	1		6010	Dissolved
Cadmium	12.2		1.00	0.500	ug/L	1		6010	Dissolved
Nickel	72.9		10.0	1.26	ug/L	1		6010	Dissolved
Zinc	978	В	50.0	1.50	ug/L	1		6010	Dissolved

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Received: 01/29/14 01:30

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-1

Matrix: Water

Client Sample ID: WCMW-11 Date Collected: 01/27/14 09:01

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75	ug/L			01/30/14 17:38	
1,1,1-Trichloroethane	<4.10	5.00	4.10	ug/L			01/30/14 17:38	
1,1,2,2-Tetrachloroethane	<1.05	2.50	1.05	ug/L			01/30/14 17:38	
1,1,2-Trichloroethane	<1.15	5.00	1.15	ug/L			01/30/14 17:38	
1,1-Dichloroethane	<1.90	5.00	1.90	ug/L			01/30/14 17:38	
1,1-Dichloroethene	<1.45	5.00	1.45	ug/L			01/30/14 17:38	
1,1-Dichloropropene	<3.60	5.00	3.60	ug/L			01/30/14 17:38	
1,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 17:38	
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L			01/30/14 17:38	
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 17:38	
1,2,4-Trimethylbenzene	<3.75	5.00	3.75	ug/L			01/30/14 17:38	
1,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L			01/30/14 17:38	
1,2-Dichlorobenzene	<3.95	5.00	3.95	ug/L			01/30/14 17:38	
1,2-Dichloroethane	<1.05	5.00		ug/L			01/30/14 17:38	
1,2-Dichloropropane	<3.60	5.00		ug/L			01/30/14 17:38	
1,3,5-Trimethylbenzene	<3.85	5.00		ug/L			01/30/14 17:38	
1,3-Dichlorobenzene	<3.90	5.00		ug/L			01/30/14 17:38	
1,3-Dichloropropane	<3.75	5.00		ug/L			01/30/14 17:38	
1,4-Dichlorobenzene	<4.20	5.00		ug/L			01/30/14 17:38	
1,4-Dioxane	<46.6	250		ug/L			01/30/14 17:38	
2,2-Dichloropropane	<2.00	5.00		ug/L			01/30/14 17:38	
	<6.60 *	50.0		ug/L			01/30/14 17:38	
2-Butanone (MEK)								
2-Chlorotoluene	<4.30	5.00		ug/L			01/30/14 17:38	
2-Hexanone	<6.20	50.0		ug/L			01/30/14 17:38	
4-Chlorotoluene	<4.20	5.00		ug/L			01/30/14 17:38	
4-Isopropyltoluene	<1.55	5.00		ug/L			01/30/14 17:38	
4-Methyl-2-pentanone (MIBK)	<10.5	50.0		ug/L			01/30/14 17:38	
Acetone	<15.0	250		ug/L			01/30/14 17:38	
Benzene	<2.05	5.00		ug/L			01/30/14 17:38	
Bromobenzene	<4.00	5.00		ug/L			01/30/14 17:38	
Bromoform	<1.30	5.00		ug/L			01/30/14 17:38	
Bromomethane	<3.45	10.0	3.45	ug/L			01/30/14 17:38	
Carbon disulfide	<0.950	50.0	0.950	ug/L			01/30/14 17:38	
Carbon tetrachloride	<1.35	5.00	1.35	ug/L			01/30/14 17:38	
Chlorobenzene	<3.75	5.00	3.75	ug/L			01/30/14 17:38	
Chlorobromomethane	<4.35	5.00	4.35	ug/L			01/30/14 17:38	
Chlorodibromomethane	<1.60	2.50	1.60	ug/L			01/30/14 17:38	
Chloroethane	<1.60	10.0	1.60	ug/L			01/30/14 17:38	
Chloroform	<1.70	5.00	1.70	ug/L			01/30/14 17:38	
Chloromethane	<1.75	10.0	1.75	ug/L			01/30/14 17:38	
cis-1,2-Dichloroethene	<4.05	5.00	4.05	ug/L			01/30/14 17:38	
cis-1,3-Dichloropropene	<1.80	2.00	1.80	ug/L			01/30/14 17:38	
Dichlorobromomethane	<1.95	2.50	1.95	ug/L			01/30/14 17:38	
Dichlorodifluoromethane	<3.40	5.00		ug/L			01/30/14 17:38	
Ethyl ether	<3.60	5.00		ug/L			01/30/14 17:38	
Ethylbenzene	<3.70	5.00		ug/L			01/30/14 17:38	
Ethylene Dibromide	<3.65	5.00		ug/L			01/30/14 17:38	
Hexachlorobutadiene	<1.40	2.00		ug/L			01/30/14 17:38	
Isopropyl ether	<2.95	50.0		ug/L			01/30/14 17:38	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-1

01/30/14 17:38

Matrix: Water

Client Sample ID: WCMW-11 Date Collected: 01/27/14 09:01 Date Received: 01/29/14 01:30

4-Bromofluorobenzene (Surr)

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued) Dil Fac Result Qualifier RL MDL Unit D Analyte Prepared Analyzed Isopropylbenzene <3.95 5.00 3.95 01/30/14 17:38 ug/L <0.800 5.00 5 Methyl tert-butyl ether 0.800 ug/L 01/30/14 17:38 Methylene Chloride <2.20 5.00 2.20 ug/L 01/30/14 17:38 5 m-Xylene & p-Xylene <3.30 10.0 3.30 ug/L 01/30/14 17:38 5 5 Naphthalene <2.15 25.0 2.15 ug/L 01/30/14 17:38 n-Butylbenzene <3.20 5.00 3.20 ug/L 01/30/14 17:38 5 N-Propylbenzene <3.45 5.00 3.45 ug/L 01/30/14 17:38 5 <3.80 5.00 ug/L 01/30/14 17:38 5 o-Xylene 3.80 5.00 5 sec-Butylbenzene <3.75 3.75 ug/L 01/30/14 17:38 5.00 5 Styrene <3.65 3.65 ug/L 01/30/14 17:38 Tert-amyl methyl ether 5 <1.35 25.0 1.35 ug/L 01/30/14 17:38 Tert-butyl ethyl ether 25.0 01/30/14 17:38 5 <1.47 1.47 ug/L 5 tert-Butylbenzene <4.05 5.00 4.05 ug/L 01/30/14 17:38 Tetrachloroethene 5.00 1.80 ug/L 01/30/14 17:38 5 9.11 50.0 5 Tetrahydrofuran <6.25 6.25 ug/L 01/30/14 17:38 Toluene <2.55 5.00 2.55 ug/L 01/30/14 17:38 5 5.00 5 trans-1,2-Dichloroethene <4.50 4.50 ug/L 01/30/14 17:38 trans-1,3-Dichloropropene <1.85 2.00 1.85 ug/L 01/30/14 17:38 5 Trichloroethene <2.30 5.00 ug/L 01/30/14 17:38 5 2.30 5 Trichlorofluoromethane <4.40 5.00 4.40 ug/L 01/30/14 17:38 4.50 ug/L Vinyl chloride <4.50 5.00 01/30/14 17:38 5 5 Dibromomethane <2.05 5.00 2.05 ug/L 01/30/14 17:38 Qualifier Prepared Dil Fac Surrogate %Recovery Limits Analyzed Toluene-d8 (Surr) 97 70 - 130 01/30/14 17:38 5 99 70 - 130 5 1,2-Dichloroethane-d4 (Surr) 01/30/14 17:38

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)									
Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1

70 - 130

97

Method: MAVPH - Massachuse	tts - Volatile Pet	roleum Hyd	lrocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	1.79	J	5.00	1.50	ug/L			01/29/14 11:39	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 11:39	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 11:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	88		70 - 130			-		01/29/14 11:39	1
2,5-Dibromotoluene (pid)	91		70 - 130					01/29/14 11:39	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Acenaphthene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Acenaphthylene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Anthracene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Benzo[a]anthracene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Benzo[a]pyrene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1

TestAmerica Buffalo

2/7/2014

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-1

Matrix: Water

Date Collected: 01/27/14 09:01 Date Received: 01/29/14 01:30

**Client Sample ID: WCMW-11** 

Method: MA-EPH - Massachuset	tts - Extractable	Petroleum	<b>Hydrocarbons</b>	(GC) (C	ontinued	)			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Benzo[g,h,i]perylene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Benzo[k]fluoranthene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Chrysene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Dibenz(a,h)anthracene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Fluoranthene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Fluorene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Indeno[1,2,3-cd]pyrene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Naphthalene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Phenanthrene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
Pyrene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 11:24	1
C11-C22 Aromatics (unadjusted)	14.9	JB	47.3	9.47	ug/L		01/30/14 05:48	01/31/14 11:24	1
C19-C36 Aliphatics	<47.3		47.3	9.47	ug/L		01/30/14 05:48	01/31/14 11:24	1
C9-C18 Aliphatics	<47.3		47.3	9.47	ug/L		01/30/14 05:48	01/31/14 11:24	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	26	X	40 - 140				01/30/14 05:48	01/31/14 11:24	1
2-Bromonaphthalene	85		40 - 140				01/30/14 05:48	01/31/14 11:24	1
2-Fluorobiphenyl	93		40 - 140				01/30/14 05:48	01/31/14 11:24	1
o-Terphenyl	50		40 - 140				01/30/14 05:48	01/31/14 11:24	1
_									

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 19:29	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 19:29	1
Barium	48.4		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 19:29	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 19:29	1
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 19:29	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 19:29	1
Nickel	11.4		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 19:29	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 19:29	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 16:49	1
Zinc	374	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 16:49	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 19:29	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 19:29	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 19:29	1

Method: 7470A - Mercury (CVAA) - Dissolved										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:07	1

Client Sample ID: MW-1R Lab Sample ID: 480-53903-2 Date Collected: 01/27/14 09:06 Matrix: Water

Date Received: 01/29/14 01:30

Method: 8260C - Volatile Organic (	Compounds (GC/MS)						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75 ug/L			01/30/14 18:02	5

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-2

Matrix: Water

**Client Sample ID: MW-1R** 

Date Collected: 01/27/14 09:06 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fa
1,1,1-Trichloroethane	<4.10	5.00	4.10	ug/L		01/30/14 18:02	
1,1,2,2-Tetrachloroethane	<1.05	2.50	1.05	ug/L		01/30/14 18:02	
1,1,2-Trichloroethane	<1.15	5.00	1.15	ug/L		01/30/14 18:02	
1,1-Dichloroethane	<1.90	5.00	1.90	ug/L		01/30/14 18:02	
1,1-Dichloroethene	<1.45	5.00	1.45	ug/L		01/30/14 18:02	
1,1-Dichloropropene	<3.60	5.00	3.60	ug/L		01/30/14 18:02	
1,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L		01/30/14 18:02	
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L		01/30/14 18:02	
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L		01/30/14 18:02	
1,2,4-Trimethylbenzene	<3.75	5.00		ug/L		01/30/14 18:02	
1,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L		01/30/14 18:02	
1,2-Dichlorobenzene	<3.95	5.00		ug/L		01/30/14 18:02	
1,2-Dichloroethane	<1.05	5.00		ug/L		01/30/14 18:02	
1,2-Dichloropropane	<3.60	5.00		ug/L		01/30/14 18:02	
1,3,5-Trimethylbenzene	<3.85	5.00		ug/L		01/30/14 18:02	;
1,3-Dichlorobenzene	<3.90	5.00		ug/L		01/30/14 18:02	
1,3-Dichloropropane	<3.75	5.00		ug/L		01/30/14 18:02	
1.4-Dichlorobenzene	<4.20	5.00		ug/L		01/30/14 18:02	;
1,4-Dioxane	<46.6	250		ug/L		01/30/14 18:02	
2,2-Dichloropropane	<2.00	5.00		ug/L		01/30/14 18:02	
2-Butanone (MEK)	<6.60 *	50.0		ug/L		01/30/14 18:02	
2-Chlorotoluene	<4.30	5.00		ug/L		01/30/14 18:02	
2-Hexanone	<6.20	50.0		ug/L		01/30/14 18:02	
4-Chlorotoluene	<4.20	5.00		ug/L		01/30/14 18:02	
4-Isopropyltoluene	<1.55	5.00		ug/L		01/30/14 18:02	·
4-Methyl-2-pentanone (MIBK)	<10.5	50.0		ug/L		01/30/14 18:02	
Acetone	<15.0	250		ug/L		01/30/14 18:02	
Benzene	<2.05	5.00		ug/L		01/30/14 18:02	
Bromobenzene	<4.00	5.00		ug/L		01/30/14 18:02	
Bromoform	<1.30	5.00		ug/L		01/30/14 18:02	
Bromomethane	<3.45	10.0		ug/L		01/30/14 18:02	
Carbon disulfide	<0.950	50.0	0.950	-		01/30/14 18:02	
Carbon tetrachloride							
Carbon tetrachionde Chlorobenzene	<1.35 <3.75	5.00 5.00		ug/L		01/30/14 18:02	
				ug/L		01/30/14 18:02	
Chlorodibromomethane	<4.35	5.00		ug/L		01/30/14 18:02	
Chlorodibromomethane	<1.60	2.50		ug/L		01/30/14 18:02	
Chloroethane	<1.60	10.0		ug/L		01/30/14 18:02	
Chloroform	<1.70	5.00		ug/L		01/30/14 18:02	
Chloromethane	<1.75	10.0		ug/L		01/30/14 18:02	;
cis-1,2-Dichloroethene	<4.05	5.00		ug/L		01/30/14 18:02	
cis-1,3-Dichloropropene	<1.80	2.00		ug/L		01/30/14 18:02	
Dichlorobromomethane	<1.95	2.50		ug/L		01/30/14 18:02	
Dichlorodifluoromethane	<3.40	5.00		ug/L		01/30/14 18:02	;
Ethyl ether	<3.60	5.00		ug/L		01/30/14 18:02	
Ethylbenzene	<3.70	5.00		ug/L		01/30/14 18:02	
Ethylene Dibromide	<3.65	5.00		ug/L		01/30/14 18:02	
Hexachlorobutadiene	<1.40	2.00	1.40	ug/L		01/30/14 18:02	
Isopropyl ether	<2.95	50.0	2.95	ug/L		01/30/14 18:02	
Isopropylbenzene	<3.95	5.00	3.95	ug/L		01/30/14 18:02	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-2

Matrix: Water

Client Sample ID: MW-1R Date Collected: 01/27/14 09:06 Date Received: 01/29/14 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued) Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Methyl tert-butyl ether <0.800 5.00 0.800 ug/L 01/30/14 18:02 <2.20 5.00 5 Methylene Chloride 2.20 ug/L 01/30/14 18:02 m-Xylene & p-Xylene <3.30 10.0 3.30 ug/L 01/30/14 18:02 5 Naphthalene <2.15 25.0 01/30/14 18:02 5 2.15 ug/L 5 n-Butylbenzene <3.20 5.00 3.20 ug/L 01/30/14 18:02 5.00 01/30/14 18:02 5 N-Propylbenzene <3 45 3.45 ug/L o-Xylene <3.80 5.00 3.80 ug/L 01/30/14 18:02 5 sec-Butylbenzene <3.75 5.00 3.75 ug/L 01/30/14 18:02 5 5 Styrene <3.65 5.00 3.65 ug/L 01/30/14 18:02 5 Tert-amyl methyl ether <1.35 25.0 1.35 ug/L 01/30/14 18:02 Tert-butyl ethyl ether 25.0 01/30/14 18:02 5 <1.47 1.47 ug/L tert-Butylbenzene <4.05 5.00 01/30/14 18:02 5 4.05 ug/L 5 Tetrachloroethene <1.80 5.00 1.80 ug/L 01/30/14 18:02 Tetrahydrofuran <6.25 50.0 6.25 ug/L 01/30/14 18:02 5 5.00 5 Toluene <2 55 2.55 ug/L 01/30/14 18:02 trans-1,2-Dichloroethene <4.50 5.00 4.50 ug/L 01/30/14 18:02 5 <1.85 2.00 5 trans-1,3-Dichloropropene 1.85 ug/L 01/30/14 18:02 Trichloroethene <2.30 5.00 2.30 ug/L 01/30/14 18:02 5 Trichlorofluoromethane <4.40 5.00 4.40 ug/L 01/30/14 18:02 5 5 Vinyl chloride <4.50 5.00 4.50 ug/L 01/30/14 18:02 Dibromomethane <2.05 5.00 2.05 ug/L 01/30/14 18:02

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		01/30/14 18:02	5
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		01/30/14 18:02	5
4-Bromofluorobenzene (Surr)	101		70 - 130		01/30/14 18:02	5

### Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<5.00	5.00	1.50 ug/L			01/29/14 13:05	1
C9-C12 Aliphatics (adjusted)	<5.00	5.00	1.50 ug/L			01/29/14 13:05	1

Method: MAVPH -	Massachusetts -	- Volatile Petroleum	Hydrocarbons	(GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 12:18	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 12:18	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 12:18	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2,5-Dibromotoluene (fid)	92		70 - 130	-		01/29/14 12:18	1	
2.5-Dibromotoluene (pid)	95		70 - 130			01/29/14 12:18	1	

### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result Qu	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Acenaphthene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Acenaphthylene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Anthracene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Benzo[a]anthracene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Benzo[a]pyrene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Benzo[b]fluoranthene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-2

01/30/14 05:48

01/30/14 05:48

01/31/14 11:53

01/31/14 11:53

Matrix: Water

**Client Sample ID: MW-1R** 

Date Collected: 01/27/14 09:06 Date Received: 01/29/14 01:30

2-Fluorobiphenyl

o-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Benzo[k]fluoranthene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Chrysene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Dibenz(a,h)anthracene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Fluoranthene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Fluorene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Indeno[1,2,3-cd]pyrene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Naphthalene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Phenanthrene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
Pyrene	<9.55		9.55	1.91	ug/L		01/30/14 05:48	01/31/14 11:53	1
C11-C22 Aromatics (unadjusted)	15.5	J B	47.7	9.55	ug/L		01/30/14 05:48	01/31/14 11:53	1
C19-C36 Aliphatics	<47.7		47.7	9.55	ug/L		01/30/14 05:48	01/31/14 11:53	1
C9-C18 Aliphatics	23.6	J	47.7	9.55	ug/L		01/30/14 05:48	01/31/14 11:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	31	X	40 - 140				01/30/14 05:48	01/31/14 11:53	1
2-Bromonaphthalene	46		40 - 140				01/30/14 05:48	01/31/14 11:53	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 19:41	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 19:41	1
Barium	94.7		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 19:41	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 19:41	1
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 19:41	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 19:41	1
Nickel	4.30	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 19:41	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 19:41	1
Vanadium	1.92	J	10.0	1.50	ug/L		01/29/14 10:45	01/31/14 16:52	1
Zinc	7.64	JB	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 16:52	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 19:41	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 19:41	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 19:41	1

40 - 140

40 - 140

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Method: 7470A - Mercury (CVAA) -	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:09	1

Lab Sample ID: 480-53903-3 **Client Sample ID: WCMW-7** Date Collected: 01/27/14 10:03 **Matrix: Water** 

Date Received: 01/29/14 01:30

Method: 8260C - Volatile Orga	nic Compounds (GC/MS)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.700	2.00	0.700	ug/L			01/31/14 01:45	2
1,1,1-Trichloroethane	<1.64	2.00	1.64	ug/L			01/31/14 01:45	2

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-3

Matrix: Water

Client Sample ID: WCMW-7

Date Collected: 01/27/14 10:03 Date Received: 01/29/14 01:30

1.1,2.2-Teinhorberthane         <0.420         1.00         0.420         ugl.         01/31/14 0146           1.1,2-Teinhorberthane         <0.460         2.00         0.460         ugl.         01/31/14 0146           1.1-Deichorberthane         <0.580         2.00         0.580         ugl.         01/31/14 0146           1.1-Deichorberthane         <0.580         2.00         0.820         ugl.         01/31/14 0146           1.2,3-Trichorberthane         <0.820         2.00         0.820         ugl.         01/31/14 0146           1.2,3-Trichorberthane         <0.820         2.00         0.820         ugl.         01/31/14 0145           1.2,4-Trindhyberthane         <1.50         2.00         0.820         ugl.         01/31/14 0145           1.2,4-Trindhyberthane         <1.50         2.00         0.820         ugl.         01/31/14 0145           1.2,Deichorberthane         <0.750         0.10         0.780         ugl.         01/31/14 0145           1.2,Deichorberthane         <0.450         2.00         0.420         ugl.         01/31/14 0145           1.2,Deichorberthane         <1.54         2.00         1.44         ugl.         01/31/14 0145           1.2,Deichorberthane         <1.56	lyte	Result Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
1.1-Dichloroethane	2,2-Tetrachloroethane	<0.420	1.00	0.420	ug/L			01/31/14 01:45	
1.1-Dichloropropene	2-Trichloroethane	<0.460	2.00	0.460	ug/L			01/31/14 01:45	
1.1-Dichloropropene 1.1-4	Dichloroethane	<0.760	2.00	0.760	ug/L			01/31/14 01:45	:
1.2.3-Trichloropenaree	Dichloroethene	<0.580	2.00	0.580	ug/L			01/31/14 01:45	:
1.2.3-Trichloropropane	Dichloropropene	<1.44	2.00	1.44	ug/L			01/31/14 01:45	:
12.4-Trinchiorobenzene	3-Trichlorobenzene	<0.820	2.00	0.820	ug/L			01/31/14 01:45	:
1.2.4-Trimethylbenzene	3-Trichloropropane	<1.78	2.00	1.78	ug/L			01/31/14 01:45	:
1.2.Dibromo-3-Chloropropane	4-Trichlorobenzene	<0.820	2.00	0.820	ug/L			01/31/14 01:45	:
1.2-Dichlorobenzene	4-Trimethylbenzene	<1.50	2.00	1.50	ug/L			01/31/14 01:45	:
1.2-Dichloroethane	Dibromo-3-Chloropropane	<0.780	10.0	0.780	ug/L			01/31/14 01:45	:
1,2-Dichloropropane	Dichlorobenzene	<1.58	2.00	1.58	ug/L			01/31/14 01:45	:
1,3,5-Trimethylbenzene	Dichloroethane	<0.420	2.00	0.420	ug/L			01/31/14 01:45	:
1,3-Dichlorobenzene	Dichloropropane	<1.44	2.00	1.44	ug/L			01/31/14 01:45	:
1,3-Dichloropropane	5-Trimethylbenzene	<1.54	2.00	1.54	ug/L			01/31/14 01:45	:
1,4-Dichlorobenzene	Dichlorobenzene	<1.56	2.00	1.56	ug/L			01/31/14 01:45	:
1,4-Dioxane         <18.6	Dichloropropane	<1.50	2.00	1.50	ug/L			01/31/14 01:45	:
1,4-Dioxane         <18.6	Dichlorobenzene	<1.68	2.00	1.68	ug/L			01/31/14 01:45	
2,2-Dichloropropane         <0.800	Dioxane	<18.6	100					01/31/14 01:45	:
2-Chlorotoluene	Dichloropropane	<0.800	2.00					01/31/14 01:45	:
2-Chlorotoluene	utanone (MEK)	<2.64	20.0					01/31/14 01:45	
2-Hexanone		<1.72	2.00		-			01/31/14 01:45	:
4-Chlorotoluene	exanone	<2.48	20.0		-			01/31/14 01:45	:
4-Isopropyltoluene	nlorotoluene	<1.68	2.00					01/31/14 01:45	:
4-Methyl-2-pentanone (MIBK)         <4.20         20.0         4.20         ug/L         01/31/14 01:45           Acetone         <6.00	opropyltoluene	<0.620	2.00					01/31/14 01:45	:
Acetone         <6.00         100         6.00         ug/L         01/31/14 01:45           Benzene         <0.820	· · ·	<4.20	20.0					01/31/14 01:45	:
Benzene         <0.820         2.00         0.820 ug/L         01/31/14 01:45           Bromobenzene         <1.60		<6.00	100					01/31/14 01:45	
Bromobenzene         <1.60         2.00         1.60         ug/L         01/31/14 01:45           Bromoform         <0.520									:
Bromoform         <0,520         2.00         0.520 ug/L         01/31/14 01:45           Bromomethane         <1.38	mobenzene								
Bromomethane         <1.38         4.00         1.38         ug/L         01/31/14 01:45           Carbon disulfide         <0.380					<del>.</del>				
Carbon disulfide         <0.380         20.0         0.380 ug/L         01/31/14 01:45           Carbon tetrachloride         <0.540									
Carbon tetrachloride         <0.540         2.00         0.540 ug/L         01/31/14 01:45           Chlorobenzene         <1.50					_				
Chlorobenzene         <1.50         2.00         1.50 ug/L         01/31/14 01:45           Chlorobromomethane         <1.74									
Chlorobromomethane         <1.74         2.00         1.74         ug/L         01/31/14 01:45           Chlorodibromomethane         <0.640					•				
Chlorodibromomethane         <0.640         1.00         0.640 ug/L         01/31/14 01:45           Chloroethane         <0.640					-				
Chloroethane         <0.640         4.00         0.640         ug/L         01/31/14 01:45           Chloroform         <0.680									
Chloroform         <0.680         2.00         0.680 ug/L         01/31/14 01:45           Chloromethane         <0.700         4.00         0.700 ug/L         01/31/14 01:45           cis-1,2-Dichloroethene         109         2.00         1.62 ug/L         01/31/14 01:45           cis-1,3-Dichloropropene         <0.720         0.800         0.720 ug/L         01/31/14 01:45           Dichlorobromomethane         <0.780         1.00         0.780 ug/L         01/31/14 01:45           Dichlorodifluoromethane         <1.36         2.00         1.36 ug/L         01/31/14 01:45           Ethyl ether         <1.44         2.00         1.44 ug/L         01/31/14 01:45           Ethylbenzene         <1.48         2.00         1.48 ug/L         01/31/14 01:45           Ethylene Dibromide         <1.46         2.00         1.46 ug/L         01/31/14 01:45           Hexachlorobutadiene         <0.560         0.800         0.560 ug/L         01/31/14 01:45           Isopropyl ether         <1.18         20.0         1.18 ug/L         01/31/14 01:45									
Chloromethane         <0.700         4.00         0.700 ug/L         01/31/14 01:45           cis-1,2-Dichloroethene         109         2.00         1.62 ug/L         01/31/14 01:45           cis-1,3-Dichloropropene         <0.720         0.800         0.720 ug/L         01/31/14 01:45           Dichlorobromomethane         <0.780         1.00         0.780 ug/L         01/31/14 01:45           Dichlorodifluoromethane         <1.36         2.00         1.36 ug/L         01/31/14 01:45           Ethyl ether         <1.44         2.00         1.44 ug/L         01/31/14 01:45           Ethylbenzene         <1.48         2.00         1.48 ug/L         01/31/14 01:45           Ethylene Dibromide         <1.46         2.00         1.46 ug/L         01/31/14 01:45           Hexachlorobutadiene         <0.560         0.800         0.560 ug/L         01/31/14 01:45           Isopropyl ether         <1.18         20.0         1.18 ug/L         01/31/14 01:45					-				
cis-1,2-Dichloroethene         109         2.00         1.62 ug/L         01/31/14 01:45           cis-1,3-Dichloropropene         <0.720									
cis-1,3-Dichloropropene         <0.720									
Dichlorobromomethane         <0.780         1.00         0.780 ug/L         01/31/14 01:45           Dichlorodifluoromethane         <1.36					-				
Dichlorodifluoromethane         <1.36         2.00         1.36 ug/L         01/31/14 01:45           Ethyl ether         <1.44									
Ethyl ether         <1.44         2.00         1.44 ug/L         01/31/14 01:45           Ethylbenzene         <1.48					•				
Ethylbenzene         <1.48         2.00         1.48 ug/L         01/31/14 01:45           Ethylene Dibromide         <1.46					-				•
Ethylene Dibromide         <1.46         2.00         1.46 ug/L         01/31/14 01:45           Hexachlorobutadiene         <0.560									
Hexachlorobutadiene         <0.560         0.800         0.560 ug/L         01/31/14 01:45           Isopropyl ether         <1.18									
Isopropyl ether <1.18 20.0 1.18 ug/L 01/31/14 01:45									:
sopropyibenzene <1.58 2.00 1.58 ug/L 01/31/14 01:45	• •				_				
Methyl tert-butyl ether 2.00 2.00 0.320 ug/L 01/31/14 01:45	• •				_				:

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-3

Matrix: Water

Client Sample ID: WCMW-7 Date Collected: 01/27/14 10:03

Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	<0.880		2.00	0.880	ug/L			01/31/14 01:45	2
m-Xylene & p-Xylene	<1.32		4.00	1.32	ug/L			01/31/14 01:45	2
Naphthalene	<0.860		10.0	0.860	ug/L			01/31/14 01:45	2
n-Butylbenzene	<1.28		2.00	1.28	ug/L			01/31/14 01:45	2
N-Propylbenzene	<1.38		2.00	1.38	ug/L			01/31/14 01:45	2
o-Xylene	<1.52		2.00	1.52	ug/L			01/31/14 01:45	2
sec-Butylbenzene	<1.50		2.00	1.50	ug/L			01/31/14 01:45	2
Styrene	<1.46		2.00	1.46	ug/L			01/31/14 01:45	2
Tert-amyl methyl ether	<0.540		10.0	0.540	ug/L			01/31/14 01:45	2
Tert-butyl ethyl ether	<0.588		10.0	0.588	ug/L			01/31/14 01:45	2
tert-Butylbenzene	<1.62		2.00	1.62	ug/L			01/31/14 01:45	2
Tetrachloroethene	<0.720		2.00	0.720	ug/L			01/31/14 01:45	2
Tetrahydrofuran	<2.50	*	20.0	2.50	ug/L			01/31/14 01:45	2
Toluene	<1.02		2.00	1.02	ug/L			01/31/14 01:45	2
trans-1,2-Dichloroethene	<1.80		2.00	1.80	ug/L			01/31/14 01:45	2
trans-1,3-Dichloropropene	<0.740		0.800	0.740	ug/L			01/31/14 01:45	2
Trichloroethene	7.53		2.00	0.920	ug/L			01/31/14 01:45	2
Trichlorofluoromethane	<1.76		2.00	1.76	ug/L			01/31/14 01:45	2
Vinyl chloride	3.66		2.00	1.80	ug/L			01/31/14 01:45	2
Dibromomethane	<0.820		2.00	0.820	ug/L			01/31/14 01:45	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130			_		01/31/14 01:45	
1,2-Dichloroethane-d4 (Surr)	100		70 - 130					01/31/14 01:45	2
4-Bromofluorobenzene (Surr)	98		70 - 130					01/31/14 01:45	2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	1.93	J	5.00	1.50	ug/L			01/29/14 13:05	1
C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
- Method: MAVPH - Massachuse	tts - Volatile Pet	roleum Hyd	Irocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	4.15	J	5.00	1.50	ug/L			01/29/14 12:56	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 12:56	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	90		70 - 130			=		01/29/14 12:56	1
			70 - 130					01/29/14 12:56	

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Acenaphthene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Acenaphthylene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Anthracene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Benzo[a]anthracene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Benzo[a]pyrene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Benzo[b]fluoranthene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Benzo[g,h,i]perylene	<9.46	9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-3

Matrix: Water

Client Sample ID: WCMW-7

Date Collected: 01/27/14 10:03 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Chrysene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Dibenz(a,h)anthracene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Fluoranthene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Fluorene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Indeno[1,2,3-cd]pyrene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Naphthalene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Phenanthrene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
Pyrene	<9.46		9.46	1.89	ug/L		01/30/14 05:48	01/31/14 12:23	1
C11-C22 Aromatics (unadjusted)	15.6	JB	47.3	9.46	ug/L		01/30/14 05:48	01/31/14 12:23	1
C19-C36 Aliphatics	17.4	JB	47.3	9.46	ug/L		01/30/14 05:48	01/31/14 12:23	1
C9-C18 Aliphatics	12.4	J	47.3	9.46	ug/L		01/30/14 05:48	01/31/14 12:23	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	30	X	40 - 140				01/30/14 05:48	01/31/14 12:23	1
2-Bromonaphthalene	74		40 - 140				01/30/14 05:48	01/31/14 12:23	1
2-Fluorobiphenyl	83		40 - 140				01/30/14 05:48	01/31/14 12:23	1
o-Terphenyl	55		40 - 140				01/30/14 05:48	01/31/14 12:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 19:43	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 19:43	1
Barium	297		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 19:43	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 19:43	1
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 19:43	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 19:43	1
Nickel	4.57	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 19:43	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 19:43	1
Vanadium	1.72	J	10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:02	1
Zinc	6.32	JB	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:02	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 19:43	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 19:43	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 19:43	1

Client Sample ID: WCMW-907 Lab Sample ID: 480-53903-4 Date Collected: 01/27/14 10:03 Matrix: Water

RL

0.200

Result Qualifier

<0.120

MDL Unit

0.120 ug/L

Prepared

01/29/14 07:45 01/29/14 12:10

Date Received: 01/29/14 01:30

Analyte

Mercury

Method: MA-EPH - Massa	chusetts - Extractable	Petroleum Hydro	carbo	ns (GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Acenaphthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Acenaphthylene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1

TestAmerica Buffalo

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Dil Fac

Analyzed

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-4

Matrix: Water

Client Sample ID: WCMW-907

Date Collected: 01/27/14 10:03 Date Received: 01/29/14 01:30

Method: MA-EPH - Massachusetts	- Extractable	<b>Petroleum</b>	<b>Hydrocarbons</b>	(GC) (C	ontinued)	)			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Benzo[a]anthracene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Benzo[a]pyrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Benzo[b]fluoranthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Benzo[g,h,i]perylene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Benzo[k]fluoranthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Chrysene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Dibenz(a,h)anthracene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Fluoranthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Fluorene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Indeno[1,2,3-cd]pyrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Naphthalene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Phenanthrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
Pyrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 12:53	1
C11-C22 Aromatics (unadjusted)	15.2	JB	47.4	9.48	ug/L		01/30/14 05:48	01/31/14 12:53	1
C19-C36 Aliphatics	<47.4		47.4	9.48	ug/L		01/30/14 05:48	01/31/14 12:53	1
C9-C18 Aliphatics	18.4	J	47.4	9.48	ug/L		01/30/14 05:48	01/31/14 12:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	27	X	40 - 140				01/30/14 05:48	01/31/14 12:53	1
2-Bromonaphthalene	57		40 - 140				01/30/14 05:48	01/31/14 12:53	1
2-Fluorobiphenyl	85		40 - 140				01/30/14 05:48	01/31/14 12:53	1
o-Terphenyl	50		40 - 140				01/30/14 05:48	01/31/14 12:53	1

									-
Method: 6010 - Metals (ICI	P) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 19:46	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 19:46	1
Barium	304		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 19:46	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 19:46	1
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 19:46	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 19:46	1
Nickel	<1.26		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 19:46	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 19:46	1
Vanadium	1.99	J	10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:04	1
Zinc	5.37	JB	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:04	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 19:46	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 19:46	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 19:46	1
Method: 7470A - Mercury	(CVAA) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:12	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-5

Matrix: Water

Client Sample ID: MW-4R

Date Collected: 01/27/14 10:06 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL U		D Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75 ug	g/L	_	01/30/14 18:50	
1,1,1-Trichloroethane	<4.10	5.00	4.10 ug	g/L		01/30/14 18:50	
1,1,2,2-Tetrachloroethane	<1.05	2.50	1.05 ug	g/L		01/30/14 18:50	
1,1,2-Trichloroethane	<1.15	5.00	1.15 ug	g/L		01/30/14 18:50	
1,1-Dichloroethane	<1.90	5.00	1.90 ug	g/L		01/30/14 18:50	
,1-Dichloroethene	<1.45	5.00	1.45 ug	g/L		01/30/14 18:50	
,1-Dichloropropene	<3.60	5.00	3.60 ug	g/L		01/30/14 18:50	
,2,3-Trichlorobenzene	<2.05	5.00	2.05 ug	g/L		01/30/14 18:50	
,2,3-Trichloropropane	<4.45	5.00	4.45 ug	g/L		01/30/14 18:50	
,2,4-Trichlorobenzene	<2.05	5.00	2.05 ug	g/L		01/30/14 18:50	
,2,4-Trimethylbenzene	<3.75	5.00	3.75 ug	g/L		01/30/14 18:50	
,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95 ug	g/L		01/30/14 18:50	
,2-Dichlorobenzene	<3.95	5.00	3.95 ug	g/L		01/30/14 18:50	
,2-Dichloroethane	<1.05	5.00	1.05 ug	_		01/30/14 18:50	
,2-Dichloropropane	<3.60	5.00	3.60 ug	_		01/30/14 18:50	
,3,5-Trimethylbenzene	<3.85	5.00	3.85 ug			01/30/14 18:50	
,3-Dichlorobenzene	<3.90	5.00	3.90 ug	_		01/30/14 18:50	
,3-Dichloropropane	<3.75	5.00	3.75 ug	_		01/30/14 18:50	
,4-Dichlorobenzene	<4.20	5.00	4.20 ug			01/30/14 18:50	
,4-Dioxane	<46.6	250	46.6 ug	_		01/30/14 18:50	
,2-Dichloropropane	<2.00	5.00	2.00 ug	_		01/30/14 18:50	
Butanone (MEK)	<6.60 *	50.0	6.60 ug			01/30/14 18:50	
-Chlorotoluene	<4.30	5.00	4.30 ug			01/30/14 18:50	
-Hexanone	<6.20	50.0	6.20 ug	_		01/30/14 18:50	
-Chlorotoluene	<4.20	5.00	4.20 ug			01/30/14 18:50	
-Isopropyltoluene	<1.55	5.00	1.55 ug			01/30/14 18:50	
-Methyl-2-pentanone (MIBK)	<10.5	50.0	10.5 ug	_		01/30/14 18:50	
cetone	<15.0	250	15.0 ug			01/30/14 18:50	
enzene	<2.05	5.00	2.05 ug	_		01/30/14 18:50	
romobenzene	<4.00	5.00	4.00 ug	_		01/30/14 18:50	
romoform	<1.30	5.00	1.30 ug			01/30/14 18:50	
romomethane	<3.45	10.0	3.45 ug	_		01/30/14 18:50	
	<0.950		_	_			
arbon disulfide arbon tetrachloride		50.0	0.950 ug			01/30/14 18:50	
	<1.35	5.00	1.35 ug	_		01/30/14 18:50	
hlorobenzene	<3.75	5.00	3.75 ug	<b>.</b>		01/30/14 18:50	
hlorobromomethane	<4.35	5.00	4.35 ug	_		01/30/14 18:50	
hlorodibromomethane	<1.60	2.50	1.60 ug			01/30/14 18:50	
hloroethane	<1.60	10.0	1.60 ug	_		01/30/14 18:50	
hloroform	<1.70	5.00	1.70 ug			01/30/14 18:50	
hloromethane	<1.75	10.0	1.75 ug			01/30/14 18:50	
s-1,2-Dichloroethene	<4.05	5.00	4.05 ug	_		01/30/14 18:50	
s-1,3-Dichloropropene	<1.80	2.00	1.80 ug			01/30/14 18:50	
ichlorobromomethane	<1.95	2.50	1.95 ug	_		01/30/14 18:50	
ichlorodifluoromethane	<3.40	5.00	3.40 ug	_		01/30/14 18:50	
thyl ether	<3.60	5.00	3.60 ug			01/30/14 18:50	
thylbenzene	<3.70	5.00	3.70 ug	g/L		01/30/14 18:50	
thylene Dibromide	<3.65	5.00	3.65 ug	g/L		01/30/14 18:50	
lexachlorobutadiene	<1.40	2.00	1.40 ug			01/30/14 18:50	
sopropyl ether	<2.95	50.0	2.95 ug	g/L		01/30/14 18:50	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-5

. Matrix: Water

Client Sample ID: MW-4R Date Collected: 01/27/14 10:06 Date Received: 01/29/14 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued) Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed Isopropylbenzene <3.95 5.00 3.95 ug/L 01/30/14 18:50 5.00 5 Methyl tert-butyl ether 0.800 ug/L 01/30/14 18:50 20.4 Methylene Chloride <2.20 5.00 2.20 ug/L 01/30/14 18:50 5 <3.30 10.0 3.30 ug/L 01/30/14 18:50 5 m-Xylene & p-Xylene 5 **Naphthalene** 44.5 25.0 2.15 ug/L 01/30/14 18:50 n-Butylbenzene <3.20 5.00 3.20 ug/L 01/30/14 18:50 5 N-Propylbenzene <3.45 5.00 3.45 ug/L 01/30/14 18:50 5 <3.80 5.00 3.80 ug/L 01/30/14 18:50 5 o-Xylene 5.00 5 sec-Butylbenzene <3.75 3.75 ug/L 01/30/14 18:50 5.00 5 Styrene <3.65 3.65 ug/L 01/30/14 18:50 5 Tert-amyl methyl ether 3.00 J 25.0 1.35 ug/L 01/30/14 18:50 Tert-butyl ethyl ether 25.0 01/30/14 18:50 5 <1.47 1.47 ug/L 5 tert-Butylbenzene <4.05 5.00 4.05 ug/L 01/30/14 18:50 Tetrachloroethene 3.79 5.00 1.80 ug/L 01/30/14 18:50 5 <6.25 50.0 5 Tetrahydrofuran 6.25 ug/L 01/30/14 18:50 Toluene <2.55 5.00 2.55 ug/L 01/30/14 18:50 5 5.00 5 trans-1,2-Dichloroethene <4.50 4.50 ug/L 01/30/14 18:50 trans-1,3-Dichloropropene <1.85 2.00 1.85 ug/L 01/30/14 18:50 5 Trichloroethene <2.30 5.00 2.30 ug/L 01/30/14 18:50 5 5 Trichlorofluoromethane <4.40 5.00 4.40 ug/L 01/30/14 18:50 Vinyl chloride <4.50 5.00 4.50 ug/L 01/30/14 18:50 5 Dibromomethane <2.05 5.00 2.05 ug/L 01/30/14 18:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		01/30/14 18:50	5
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		01/30/14 18:50	5
4-Bromofluorobenzene (Surr)	99		70 - 130		01/30/14 18:50	5

Method: MA VPH - Massachusetts	- Volatile Per	troleum Hyd	Irocarbons (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<25.0		25.0	7.50	ug/L			01/29/14 13:05	5
C9-C12 Aliphatics (adjusted)	<25.0		25.0	7.50	ug/L			01/29/14 13:05	5

Method: MAVPH - Massachuset	tts - Volatile Pet	roleum Hyd	Irocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	9.95	J	25.0	7.50	ug/L			01/29/14 13:51	5
C9-C10 Aromatics	57.4		25.0	2.50	ug/L			01/29/14 13:51	5
C9-C12 Aliphatics (unadjusted)	41.0		25.0	7.50	ug/L			01/29/14 13:51	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	101		70 - 130			-		01/29/14 13:51	5
2,5-Dibromotoluene (pid)	100		70 - 130					01/29/14 13:51	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	4.81	J	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Acenaphthene	26.6		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Acenaphthylene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Anthracene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Benzo[a]anthracene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Benzo[a]pyrene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-5

Matrix: Water

Client Sample ID: MW-4R

Date Collected: 01/27/14 10:06 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Benzo[g,h,i]perylene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Benzo[k]fluoranthene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Chrysene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Dibenz(a,h)anthracene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Fluoranthene	2.12	J	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Fluorene	22.0		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Indeno[1,2,3-cd]pyrene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Naphthalene	5.76	J	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Phenanthrene	26.5		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
Pyrene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 13:22	1
C11-C22 Aromatics (unadjusted)	233	В	47.7	9.53	ug/L		01/30/14 05:48	01/31/14 13:22	1
C19-C36 Aliphatics	<47.7		47.7	9.53	ug/L		01/30/14 05:48	01/31/14 13:22	1
C9-C18 Aliphatics	181		47.7	9.53	ug/L		01/30/14 05:48	01/31/14 13:22	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	145		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	29	X	40 - 140				01/30/14 05:48	01/31/14 13:22	1
2-Bromonaphthalene	28	X	40 - 140				01/30/14 05:48	01/31/14 13:22	1
2-Fluorobiphenyl	23	X	40 - 140				01/30/14 05:48	01/31/14 13:22	1
o-Terphenyl	46		40 - 140				01/30/14 05:48	01/31/14 13:22	1
o- <i>i erphenyl</i> : <mark>Method: 6010 - Metals (ICP) - Disso</mark>			40 - 140				01/30/14 05:48	01/31/14 13:22	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 19:49	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 19:49	1
Barium	273		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 19:49	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 19:49	1
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 19:49	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 19:49	1
Nickel	4.75	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 19:49	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 19:49	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:11	1
Zinc	85.6	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:11	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 19:49	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 19:49	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 19:49	1

Method: 7470A - Mercury (CVAA) - Dissolved										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:14	1

Client Sample ID: MW-2R Lab Sample ID: 480-53903-6 Date Collected: 01/27/14 11:26 Matrix: Water

Date Received: 01/29/14 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)									
	Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
	1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75 ug/L			01/30/14 19:14	5	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-6

Matrix: Water

Client Sample ID: MW-2R

Date Collected: 01/27/14 11:26 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
I,1,1-Trichloroethane	<4.10	5.00	4.10	ug/L			01/30/14 19:14	
I,1,2,2-Tetrachloroethane	<1.05	2.50	1.05	ug/L			01/30/14 19:14	
I,1,2-Trichloroethane	<1.15	5.00	1.15	ug/L			01/30/14 19:14	
I,1-Dichloroethane	<1.90	5.00	1.90	ug/L			01/30/14 19:14	
I,1-Dichloroethene	<1.45	5.00	1.45	ug/L			01/30/14 19:14	
1,1-Dichloropropene	<3.60	5.00	3.60	ug/L			01/30/14 19:14	
1,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 19:14	
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L			01/30/14 19:14	
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 19:14	
1,2,4-Trimethylbenzene	<3.75	5.00		ug/L			01/30/14 19:14	
I,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	-			01/30/14 19:14	
I,2-Dichlorobenzene	<3.95	5.00		ug/L			01/30/14 19:14	
I,2-Dichloroethane	<1.05	5.00		ug/L			01/30/14 19:14	
I,2-Dichloropropane	<3.60	5.00		ug/L			01/30/14 19:14	
1,3,5-Trimethylbenzene	<3.85	5.00		ug/L			01/30/14 19:14	
I,3-Dichlorobenzene	<3.90	5.00		ug/L			01/30/14 19:14	
I,3-Dichloropropane	<3.75	5.00		ug/L			01/30/14 19:14	
I.4-Dichlorobenzene	<4.20	5.00		ug/L			01/30/14 19:14	
,4-Dioxane	<46.6	250		ug/L			01/30/14 19:14	
2,2-Dichloropropane	<2.00	5.00		ug/L			01/30/14 19:14	
2-Butanone (MEK)	<6.60 *	50.0		ug/L			01/30/14 19:14	
-Chlorotoluene	<4.30	5.00		ug/L			01/30/14 19:14	
-Hexanone	<6.20	50.0		ug/L			01/30/14 19:14	
-Chlorotoluene	<4.20	5.00		ug/L ug/L			01/30/14 19:14	
-Silorotoluene -Isopropyltoluene	<1.55	5.00		ug/L			01/30/14 19:14	
• • •	<10.5	50.0		-			01/30/14 19:14	
-Methyl-2-pentanone (MIBK)	<15.0	250		ug/L			01/30/14 19:14	
				ug/L				
Benzene	<2.05	5.00		ug/L			01/30/14 19:14	
Bromobenzene	<4.00	5.00		ug/L			01/30/14 19:14	
Bromoform	<1.30	5.00	1.30				01/30/14 19:14	
Bromomethane	<3.45	10.0		ug/L			01/30/14 19:14	
Carbon disulfide	<0.950	50.0	0.950				01/30/14 19:14	
Carbon tetrachloride	<1.35	5.00		ug/L			01/30/14 19:14	
Chlorobenzene	<3.75	5.00		ug/L			01/30/14 19:14	
Chlorobromomethane	<4.35	5.00		ug/L			01/30/14 19:14	
Chlorodibromomethane	<1.60	2.50		ug/L			01/30/14 19:14	
Chloroethane	<1.60	10.0	1.60				01/30/14 19:14	
Chloroform	<1.70	5.00		ug/L			01/30/14 19:14	
Chloromethane	<1.75	10.0		ug/L			01/30/14 19:14	
is-1,2-Dichloroethene	4.13 J	5.00		ug/L			01/30/14 19:14	
s-1,3-Dichloropropene	<1.80	2.00		ug/L			01/30/14 19:14	
ichlorobromomethane	<1.95	2.50		ug/L			01/30/14 19:14	
Dichlorodifluoromethane	<3.40	5.00		ug/L			01/30/14 19:14	
thyl ether	<3.60	5.00		ug/L			01/30/14 19:14	
thylbenzene	<3.70	5.00	3.70	ug/L			01/30/14 19:14	
thylene Dibromide	<3.65	5.00	3.65	ug/L			01/30/14 19:14	
lexachlorobutadiene	<1.40	2.00	1.40	ug/L			01/30/14 19:14	
sopropyl ether	<2.95	50.0	2 05	ug/L			01/30/14 19:14	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-6

Matrix: Water

Client Sample ID: MW-2R Date Collected: 01/27/14 11:26

Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	<0.800		5.00	0.800	ug/L			01/30/14 19:14	5
Methylene Chloride	<2.20		5.00	2.20	ug/L			01/30/14 19:14	5
m-Xylene & p-Xylene	<3.30		10.0	3.30	ug/L			01/30/14 19:14	5
Naphthalene	14.7	J	25.0	2.15	ug/L			01/30/14 19:14	5
n-Butylbenzene	<3.20		5.00	3.20	ug/L			01/30/14 19:14	5
N-Propylbenzene	<3.45		5.00	3.45	ug/L			01/30/14 19:14	5
o-Xylene	<3.80		5.00	3.80	ug/L			01/30/14 19:14	5
sec-Butylbenzene	<3.75		5.00	3.75	ug/L			01/30/14 19:14	5
Styrene	<3.65		5.00	3.65	ug/L			01/30/14 19:14	5
Tert-amyl methyl ether	<1.35		25.0	1.35	ug/L			01/30/14 19:14	5
Tert-butyl ethyl ether	<1.47		25.0	1.47	ug/L			01/30/14 19:14	5
tert-Butylbenzene	<4.05		5.00	4.05	ug/L			01/30/14 19:14	5
Tetrachloroethene	4.40	J	5.00	1.80	ug/L			01/30/14 19:14	5
Tetrahydrofuran	<6.25	*	50.0	6.25	ug/L			01/30/14 19:14	5
Toluene	<2.55		5.00	2.55	ug/L			01/30/14 19:14	5
trans-1,2-Dichloroethene	<4.50		5.00	4.50	ug/L			01/30/14 19:14	5
trans-1,3-Dichloropropene	<1.85		2.00	1.85	ug/L			01/30/14 19:14	5
Trichloroethene	<2.30		5.00	2.30	ug/L			01/30/14 19:14	5
Trichlorofluoromethane	<4.40		5.00	4.40	ug/L			01/30/14 19:14	5
Vinyl chloride	5.19		5.00	4.50	ug/L			01/30/14 19:14	5
Dibromomethane	<2.05		5.00	2.05	ug/L			01/30/14 19:14	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130			-		01/30/14 19:14	5
1,2-Dichloroethane-d4 (Surr)	97		70 - 130					01/30/14 19:14	5
4-Bromofluorobenzene (Surr)	100		70 - 130					01/30/14 19:14	5

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	C5-C8 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
	C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1

Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
C5-C8 Aliphatics (unadjusted)	2.16	J	5.00	1.50	ug/L			01/29/14 14:43	1		
C9-C10 Aromatics	3.14	J	5.00	0.500	ug/L			01/29/14 14:43	1		
C9-C12 Aliphatics (unadjusted)	2.31	J	5.00	1.50	ug/L			01/29/14 14:43	1		

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
2,5-Dibromotoluene (fid)	104		70 - 130	_		01/29/14 14:43	1	
2,5-Dibromotoluene (pid)	103		70 - 130			01/29/14 14:43	1	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Acenaphthene	3.27	J	9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Acenaphthylene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Anthracene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Benzo[a]anthracene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Benzo[a]pyrene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Benzo[b]fluoranthene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-6

Matrix: Water

**Client Sample ID: MW-2R** Date Collected: 01/27/14 11:26 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Benzo[k]fluoranthene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Chrysene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Dibenz(a,h)anthracene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Fluoranthene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Fluorene	4.28	J	9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Indeno[1,2,3-cd]pyrene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Naphthalene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Phenanthrene	5.05	J	9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
Pyrene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 14:21	1
C11-C22 Aromatics (unadjusted)	37.1	J B	47.5	9.50	ug/L		01/30/14 05:48	01/31/14 14:21	1
C19-C36 Aliphatics	<47.5		47.5	9.50	ug/L		01/30/14 05:48	01/31/14 14:21	1
C9-C18 Aliphatics	56.9		47.5	9.50	ug/L		01/30/14 05:48	01/31/14 14:21	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	32	X	40 - 140				01/30/14 05:48	01/31/14 14:21	1
2-Bromonaphthalene	21	X	40 - 140				01/30/14 05:48	01/31/14 14:21	1
2-Fluorobiphenyl	48		40 - 140				01/30/14 05:48	01/31/14 14:21	1
o-Terphenyl	46		40 - 140				01/30/14 05:48	01/31/14 14:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:04	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:04	1
Barium	81.0		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:04	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:04	1
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:04	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:04	1
Nickel	4.55	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:04	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:04	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:23	1
Zinc	66.0	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:23	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:04	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:04	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:04	1
Method: 7470A - Mercury				30	- <del>J.</del> –				•
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil

Client Sample ID: WCMW-6	Lab Sample ID: 480-53903-7
Date Collected: 01/27/14 11:34	Matrix: Water

0.200

0.120 ug/L

<0.120

Date Received: 01/29/14 01:30

Mercury

Method: 8260C - Volatile Organic Compounds (GC/MS)										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	1,1,1,2-Tetrachloroethane	<1.75		5.00	1.75	ug/L			01/30/14 19:38	5
	1,1,1-Trichloroethane	<4.10		5.00	4.10	ug/L			01/30/14 19:38	5

TestAmerica Buffalo

01/29/14 07:45 01/29/14 12:25

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-7

Matrix: Water

**Client Sample ID: WCMW-6** 

Date Collected: 01/27/14 11:34 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL		Unit	D Prepared	Analyzed	Dil F
,1,2,2-Tetrachloroethane	<1.05	2.50		ug/L		01/30/14 19:38	
,1,2-Trichloroethane	<1.15	5.00		ug/L		01/30/14 19:38	
,1-Dichloroethane	<1.90	5.00	1.90			01/30/14 19:38	
,1-Dichloroethene	<1.45	5.00	1.45			01/30/14 19:38	
,1-Dichloropropene	<3.60	5.00	3.60	ug/L		01/30/14 19:38	
,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L		01/30/14 19:38	
,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L		01/30/14 19:38	
,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L		01/30/14 19:38	
,2,4-Trimethylbenzene	<3.75	5.00	3.75	ug/L		01/30/14 19:38	
,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L		01/30/14 19:38	
,2-Dichlorobenzene	<3.95	5.00	3.95	ug/L		01/30/14 19:38	
,2-Dichloroethane	<1.05	5.00	1.05	ug/L		01/30/14 19:38	
,2-Dichloropropane	<3.60	5.00	3.60	ug/L		01/30/14 19:38	
,3,5-Trimethylbenzene	<3.85	5.00	3.85	ug/L		01/30/14 19:38	
,3-Dichlorobenzene	<3.90	5.00	3.90	ug/L		01/30/14 19:38	
,3-Dichloropropane	<3.75	5.00	3.75	ug/L		01/30/14 19:38	
,4-Dichlorobenzene	<4.20	5.00	4.20	ug/L		01/30/14 19:38	
,4-Dioxane	<46.6	250	46.6	ug/L		01/30/14 19:38	
,2-Dichloropropane	<2.00	5.00	2.00	ug/L		01/30/14 19:38	
-Butanone (MEK)	<6.60 *	50.0	6.60	ug/L		01/30/14 19:38	
-Chlorotoluene	<4.30	5.00	4.30	ug/L		01/30/14 19:38	
-Hexanone	<6.20	50.0	6.20	ug/L		01/30/14 19:38	
-Chlorotoluene	<4.20	5.00	4.20	ug/L		01/30/14 19:38	
-lsopropyltoluene	<1.55	5.00	1.55	ug/L		01/30/14 19:38	
-Methyl-2-pentanone (MIBK)	<10.5	50.0	10.5	ug/L		01/30/14 19:38	
cetone	<15.0	250	15.0	ug/L		01/30/14 19:38	
Benzene	<2.05	5.00		ug/L		01/30/14 19:38	
romobenzene	<4.00	5.00	4.00	ug/L		01/30/14 19:38	
romoform	<1.30	5.00	1.30			01/30/14 19:38	
romomethane	<3.45	10.0		ug/L		01/30/14 19:38	
Carbon disulfide	<0.950	50.0	0.950	-		01/30/14 19:38	
Carbon tetrachloride	<1.35	5.00	1.35			01/30/14 19:38	
Chlorobenzene	<3.75	5.00	3.75	-		01/30/14 19:38	
Chlorobromomethane	<4.35	5.00	4.35			01/30/14 19:38	
Chlorodibromomethane	<1.60	2.50	1.60			01/30/14 19:38	
Chloroethane	<1.60	10.0	1.60	_		01/30/14 19:38	
Chloroform	<1.70	5.00	1.70			01/30/14 19:38	
Chloromethane	<1.75	10.0	1.75			01/30/14 19:38	
is-1,2-Dichloroethene	<4.05	5.00	4.05			01/30/14 19:38	
is-1,3-Dichloropropene	<1.80	2.00		ug/L		01/30/14 19:38	
lichlorobromomethane	<1.95	2.50		ug/L ug/L		01/30/14 19:38	
Dichlorodifluoromethane	<1.95 <3.40	5.00		ug/L ug/L		01/30/14 19:38	
	<3.60			ug/L ug/L			
thyl ether		5.00				01/30/14 19:38	
ithylbenzene	<3.70	5.00		ug/L		01/30/14 19:38	
thylene Dibromide	<3.65	5.00		ug/L		01/30/14 19:38	
lexachlorobutadiene	<1.40	2.00		ug/L		01/30/14 19:38	
sopropyl ether 	<2.95	50.0		ug/L		01/30/14 19:38	
sopropylbenzene	<3.95	5.00	3.95	ug/L		01/30/14 19:38	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-7

Matrix: Water

**Client Sample ID: WCMW-6** Date Collected: 01/27/14 11:34 Date Received: 01/29/14 01:30

2,5-Dibromotoluene (pid)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	<2.20		5.00	2.20	ug/L			01/30/14 19:38	5
m-Xylene & p-Xylene	<3.30		10.0	3.30	ug/L			01/30/14 19:38	5
Naphthalene	<2.15		25.0	2.15	ug/L			01/30/14 19:38	5
n-Butylbenzene	<3.20		5.00	3.20	ug/L			01/30/14 19:38	5
N-Propylbenzene	<3.45		5.00	3.45	ug/L			01/30/14 19:38	5
o-Xylene	<3.80		5.00	3.80	ug/L			01/30/14 19:38	5
sec-Butylbenzene	<3.75		5.00	3.75	ug/L			01/30/14 19:38	5
Styrene	<3.65		5.00	3.65	ug/L			01/30/14 19:38	5
Tert-amyl methyl ether	<1.35		25.0	1.35	ug/L			01/30/14 19:38	5
Tert-butyl ethyl ether	<1.47		25.0	1.47	ug/L			01/30/14 19:38	5
tert-Butylbenzene	<4.05		5.00	4.05	ug/L			01/30/14 19:38	5
Tetrachloroethene	<1.80		5.00	1.80	ug/L			01/30/14 19:38	5
Tetrahydrofuran	<6.25	*	50.0	6.25	ug/L			01/30/14 19:38	5
Toluene	<2.55		5.00	2.55	ug/L			01/30/14 19:38	5
trans-1,2-Dichloroethene	<4.50		5.00	4.50	ug/L			01/30/14 19:38	5
trans-1,3-Dichloropropene	<1.85		2.00	1.85	ug/L			01/30/14 19:38	5
Trichloroethene	<2.30		5.00	2.30	ug/L			01/30/14 19:38	5
Trichlorofluoromethane	<4.40		5.00	4.40	ug/L			01/30/14 19:38	5
Vinyl chloride	<4.50		5.00	4.50	ug/L			01/30/14 19:38	5
Dibromomethane	<2.05		5.00	2.05	ug/L			01/30/14 19:38	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130			-		01/30/14 19:38	5
1,2-Dichloroethane-d4 (Surr)	102		70 - 130					01/30/14 19:38	5
4-Bromofluorobenzene (Surr)	98		70 - 130					01/30/14 19:38	5

Analyte	Result	Qualifier	RL `	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	4.23	J	5.00	1.50	ug/L			01/29/14 13:05	1
C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	5.99		5.00	1.50	ug/L			01/29/14 15:21	1
C9-C10 Aromatics	0.506	J	5.00	0.500	ug/L			01/29/14 15:21	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	97		70 - 130			-		01/29/14 15:21	1

70 - 130

98

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Acenaphthene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Acenaphthylene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Anthracene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Benzo[a]anthracene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Benzo[a]pyrene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Benzo[b]fluoranthene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Benzo[g,h,i]perylene	<9.47	9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1

01/29/14 15:21

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-7

Matrix: Water

Client Sample ID: WCMW-6

Date Collected: 01/27/14 11:34 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Chrysene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Dibenz(a,h)anthracene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Fluoranthene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Fluorene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Indeno[1,2,3-cd]pyrene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Naphthalene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Phenanthrene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
Pyrene	<9.47		9.47	1.89	ug/L		01/30/14 05:48	01/31/14 14:51	1
C11-C22 Aromatics (unadjusted)	17.9	J B	47.4	9.47	ug/L		01/30/14 05:48	01/31/14 14:51	1
C19-C36 Aliphatics	<47.4		47.4	9.47	ug/L		01/30/14 05:48	01/31/14 14:51	1
C9-C18 Aliphatics	15.5	J	47.4	9.47	ug/L		01/30/14 05:48	01/31/14 14:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	34	X	40 - 140				01/30/14 05:48	01/31/14 14:51	1
2-Bromonaphthalene	50		40 - 140				01/30/14 05:48	01/31/14 14:51	1
2-Fluorobiphenyl	77		40 - 140				01/30/14 05:48	01/31/14 14:51	1
o-Terphenyl	49		40 - 140				01/30/14 05:48	01/31/14 14:51	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:15	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:15	1
Barium	187		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:15	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:15	1
Cadmium	6.52		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:15	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:15	1
Nickel	42.1		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:15	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:15	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:26	1
Zinc	2200	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:26	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:15	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:15	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:15	1

Method: 7470A - Mercury (CVAA) - Dissolved										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:26	1

Client Sample ID: WCMW-5

Date Collected: 01/27/14 12:35

Lab Sample ID: 480-53903-8

Matrix: Water

Date Received: 01/29/14 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)											
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75	ug/L			01/30/14 20:01	5			
1,1,1-Trichloroethane	<4.10	5.00	4.10	ug/L			01/30/14 20:01	5			
1,1,2,2-Tetrachloroethane	<1.05	2.50	1.05	ug/L			01/30/14 20:01	5			

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5

8

4.6

11

13

14

13

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-8

Matrix: Water

**Client Sample ID: WCMW-5** 

Date Collected: 01/27/14 12:35 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,2-Trichloroethane	<1.15	5.00	1.15	ug/L			01/30/14 20:01	
1,1-Dichloroethane	<1.90	5.00	1.90	ug/L			01/30/14 20:01	
1,1-Dichloroethene	<1.45	5.00	1.45	ug/L			01/30/14 20:01	
1,1-Dichloropropene	<3.60	5.00	3.60	ug/L			01/30/14 20:01	
1,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 20:01	
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L			01/30/14 20:01	
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 20:01	
1,2,4-Trimethylbenzene	<3.75	5.00	3.75	ug/L			01/30/14 20:01	
1,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L			01/30/14 20:01	
1,2-Dichlorobenzene	<3.95	5.00	3.95	ug/L			01/30/14 20:01	
1,2-Dichloroethane	<1.05	5.00	1.05	ug/L			01/30/14 20:01	
1,2-Dichloropropane	<3.60	5.00	3.60	-			01/30/14 20:01	
1,3,5-Trimethylbenzene	<3.85	5.00	3.85				01/30/14 20:01	
1,3-Dichlorobenzene	<3.90	5.00		ug/L			01/30/14 20:01	
1,3-Dichloropropane	<3.75	5.00	3.75	-			01/30/14 20:01	
1,4-Dichlorobenzene	<4.20	5.00	4.20				01/30/14 20:01	
1,4-Dioxane	<46.6	250	46.6	-			01/30/14 20:01	
2,2-Dichloropropane	<2.00	5.00	2.00	_			01/30/14 20:01	
2-Butanone (MEK)	<6.60 *	50.0	6.60				01/30/14 20:01	
2-Chlorotoluene	<4.30	5.00	4.30				01/30/14 20:01	
2-Hexanone	<6.20	50.0	6.20	-			01/30/14 20:01	
1-Chlorotoluene	<4.20	5.00	4.20				01/30/14 20:01	
	<1.55	5.00	1.55	-			01/30/14 20:01	
1-Isopropyltoluene	<10.5	50.0		-			01/30/14 20:01	
4-Methyl-2-pentanone (MIBK)			10.5					
Acetone	<15.0	250		ug/L			01/30/14 20:01	
Benzene	<2.05	5.00	2.05	-			01/30/14 20:01	
Bromobenzene	<4.00	5.00	4.00				01/30/14 20:01	
Bromoform	<1.30	5.00	1.30	-			01/30/14 20:01	
Bromomethane	<3.45	10.0	3.45	-			01/30/14 20:01	
Carbon disulfide	<0.950	50.0	0.950				01/30/14 20:01	
Carbon tetrachloride	<1.35	5.00	1.35	-			01/30/14 20:01	
Chlorobenzene	8.00	5.00		ug/L			01/30/14 20:01	
Chlorobromomethane	<4.35	5.00	4.35	ug/L			01/30/14 20:01	
Chlorodibromomethane	<1.60	2.50	1.60	ug/L			01/30/14 20:01	
Chloroethane	<1.60	10.0	1.60	_			01/30/14 20:01	
Chloroform	<1.70	5.00	1.70				01/30/14 20:01	
Chloromethane	<1.75	10.0	1.75				01/30/14 20:01	
sis-1,2-Dichloroethene	<4.05	5.00	4.05	ug/L			01/30/14 20:01	
sis-1,3-Dichloropropene	<1.80	2.00	1.80	ug/L			01/30/14 20:01	
Dichlorobromomethane	<1.95	2.50	1.95	ug/L			01/30/14 20:01	
Dichlorodifluoromethane	<3.40	5.00	3.40	ug/L			01/30/14 20:01	
Ethyl ether	<3.60	5.00	3.60	ug/L			01/30/14 20:01	
Ethylbenzene	<3.70	5.00	3.70	ug/L			01/30/14 20:01	
Ethylene Dibromide	<3.65	5.00	3.65	ug/L			01/30/14 20:01	
Hexachlorobutadiene	<1.40	2.00	1.40	ug/L			01/30/14 20:01	
sopropyl ether	<2.95	50.0		ug/L			01/30/14 20:01	
sopropylbenzene	<3.95	5.00		ug/L			01/30/14 20:01	
Methyl tert-butyl ether	12.0	5.00	0.800	_			01/30/14 20:01	
Methylene Chloride	<2.20	5.00		ug/L			01/30/14 20:01	

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-5** 

Date Collected: 01/27/14 12:35

Date Received: 01/29/14 01:30

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<3.30		10.0	3.30	ug/L			01/30/14 20:01	5
Naphthalene	<2.15		25.0	2.15	ug/L			01/30/14 20:01	5
n-Butylbenzene	<3.20		5.00	3.20	ug/L			01/30/14 20:01	5
N-Propylbenzene	<3.45		5.00	3.45	ug/L			01/30/14 20:01	5
o-Xylene	<3.80		5.00	3.80	ug/L			01/30/14 20:01	5
sec-Butylbenzene	<3.75		5.00	3.75	ug/L			01/30/14 20:01	5
Styrene	<3.65		5.00	3.65	ug/L			01/30/14 20:01	5
Tert-amyl methyl ether	<1.35		25.0	1.35	ug/L			01/30/14 20:01	5
Tert-butyl ethyl ether	<1.47		25.0	1.47	ug/L			01/30/14 20:01	5
tert-Butylbenzene	<4.05		5.00	4.05	ug/L			01/30/14 20:01	5
Tetrachloroethene	<1.80		5.00	1.80	ug/L			01/30/14 20:01	5
Tetrahydrofuran	<6.25	*	50.0	6.25	ug/L			01/30/14 20:01	5
Toluene	<2.55		5.00	2.55	ug/L			01/30/14 20:01	5
trans-1,2-Dichloroethene	<4.50		5.00	4.50	ug/L			01/30/14 20:01	5
trans-1,3-Dichloropropene	<1.85		2.00	1.85	ug/L			01/30/14 20:01	5
Trichloroethene	<2.30		5.00	2.30	ug/L			01/30/14 20:01	5
Trichlorofluoromethane	<4.40		5.00	4.40	ug/L			01/30/14 20:01	5
Vinyl chloride	<4.50		5.00	4.50	ug/L			01/30/14 20:01	5
Dibromomethane	<2.05		5.00	2.05	ug/L			01/30/14 20:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130			_		01/30/14 20:01	5
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/30/14 20:01	5
4-Bromofluorobenzene (Surr)	101		70 <sub>-</sub> 130					01/30/14 20:01	5

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	C5-C8 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
	C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1

Method: MAVPH - Massachuset	ts - Volatile Pet	roleum Hyd	Irocarbons (GC	;)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	3.59	J	5.00	1.50	ug/L			01/29/14 16:00	1
C9-C10 Aromatics	3.58	J	5.00	0.500	ug/L			01/29/14 16:00	1
C9-C12 Aliphatics (unadjusted)	4.21	J	5.00	1.50	ug/L			01/29/14 16:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	99		70 - 130			-		01/29/14 16:00	1
2,5-Dibromotoluene (pid)	99		70 - 130					01/29/14 16:00	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Acenaphthene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Acenaphthylene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Anthracene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Benzo[a]anthracene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Benzo[a]pyrene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Benzo[b]fluoranthene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Benzo[g,h,i]perylene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1
Benzo[k]fluoranthene	<9.55	9.55	1.91	ug/L		01/30/14 05:48	01/31/14 15:20	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-8

Matrix: Water

**Client Sample ID: WCMW-5** 

Date Collected: 01/27/14 12:35 Date Received: 01/29/14 01:30

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued) Dil Fac Analyte Result Qualifier MDL Unit D Prepared Analyzed Chrysene <9.55 9.55 1.91 ug/L 01/30/14 05:48 01/31/14 15:20 <9.55 9.55 01/30/14 05:48 Dibenz(a,h)anthracene ug/L 01/31/14 15:20 1.91 Fluoranthene <9.55 9.55 1.91 ug/L 01/30/14 05:48 01/31/14 15:20 01/31/14 15:20 Fluorene <9.55 9.55 1.91 ug/L 01/30/14 05:48 Indeno[1,2,3-cd]pyrene <9.55 9.55 1.91 ug/L 01/30/14 05:48 01/31/14 15:20 Naphthalene <9.55 9.55 01/30/14 05:48 01/31/14 15:20 1 91 ug/L Phenanthrene <9.55 9.55 1.91 ug/L 01/30/14 05:48 01/31/14 15:20 <9.55 9.55 01/30/14 05:48 01/31/14 15:20 Pyrene 1.91 ug/L 01/30/14 05:48 C11-C22 Aromatics (unadjusted) 16.6 JB 47.7 9.55 ug/L 01/31/14 15:20 01/30/14 05:48 C19-C36 Aliphatics 16.9 JB 47.7 9.55 ug/L 01/31/14 15:20 01/30/14 05:48 01/31/14 15:20 **C9-C18 Aliphatics** 10.0 J 47.7 9.55 ug/L Analyte Result Qualifier RL **RL** Unit D Prepared Analyzed Dil Fac C11-C22 Aromatics (Adjusted) <50.0 50.0 50.0 ug/L 02/03/14 10:58 %Recovery Qualifier Limits Prepared Dil Fac Surrogate Analyzed 1-Chlorooctadecane 37 X 40 - 140 01/30/14 05:48 01/31/14 15:20 2-Bromonaphthalene 66 40 - 140 01/30/14 05:48 01/31/14 15:20 01/31/14 15:20 2-Fluorobiphenyl 79 40 - 140 01/30/14 05:48 o-Terphenyl 55 40 - 140 01/30/14 05:48 01/31/14 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:18	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:18	1
Barium	287		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:18	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:18	1
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:18	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:18	1
Nickel	1.75	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:18	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:18	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:37	1
Zinc	21.9	JB	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:37	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:18	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:18	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:18	1

Method: 7470A - Mercury (CVAA) -	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:28	1

Client Sample ID: WCMW-2 Lab Sample ID: 480-53903-9 Date Collected: 01/27/14 13:06 Matrix: Water Date Received: 01/29/14 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)											
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75	ug/L			01/30/14 20:25	5			
1,1,1-Trichloroethane	<4.10	5.00	4.10	ug/L			01/30/14 20:25	5			
1,1,2,2-Tetrachloroethane	<1.05	2.50	1.05	ug/L			01/30/14 20:25	5			
1,1,2-Trichloroethane	<1.15	5.00	1.15	ug/L			01/30/14 20:25	5			

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-9

Matrix: Water

Client Sample ID: WCMW-2

Date Collected: 01/27/14 13:06 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
1,1-Dichloroethane	<1.90	5.00	1.90	ug/L			01/30/14 20:25	
1,1-Dichloroethene	<1.45	5.00	1.45	ug/L			01/30/14 20:25	
1,1-Dichloropropene	<3.60	5.00	3.60	ug/L			01/30/14 20:25	
1,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 20:25	
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L			01/30/14 20:25	
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/30/14 20:25	:
1,2,4-Trimethylbenzene	<3.75	5.00	3.75	ug/L			01/30/14 20:25	;
1,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L			01/30/14 20:25	
1,2-Dichlorobenzene	<3.95	5.00	3.95	ug/L			01/30/14 20:25	
1,2-Dichloroethane	<1.05	5.00	1.05	ug/L			01/30/14 20:25	
1,2-Dichloropropane	<3.60	5.00	3.60	ug/L			01/30/14 20:25	
1,3,5-Trimethylbenzene	<3.85	5.00	3.85	ug/L			01/30/14 20:25	
1,3-Dichlorobenzene	8.32	5.00	3.90	ug/L			01/30/14 20:25	
1,3-Dichloropropane	<3.75	5.00	3.75	ug/L			01/30/14 20:25	
1,4-Dichlorobenzene	<4.20	5.00	4.20	ug/L			01/30/14 20:25	
1,4-Dioxane	<46.6	250	46.6	ug/L			01/30/14 20:25	
2,2-Dichloropropane	<2.00	5.00		ug/L			01/30/14 20:25	
2-Butanone (MEK)	<6.60 *	50.0		ug/L			01/30/14 20:25	
2-Chlorotoluene	<4.30	5.00		ug/L			01/30/14 20:25	
2-Hexanone	<6.20	50.0		ug/L			01/30/14 20:25	
4-Chlorotoluene	<4.20	5.00		ug/L			01/30/14 20:25	
4-Isopropyltoluene	<1.55	5.00		ug/L			01/30/14 20:25	
4-Methyl-2-pentanone (MIBK)	<10.5	50.0		ug/L			01/30/14 20:25	
Acetone	<15.0	250		ug/L			01/30/14 20:25	
Benzene	<2.05	5.00		ug/L			01/30/14 20:25	
Bromobenzene	<4.00	5.00		ug/L			01/30/14 20:25	
Bromoform	<1.30	5.00		ug/L			01/30/14 20:25	;
Bromomethane	<3.45	10.0		ug/L			01/30/14 20:25	
Carbon disulfide	<0.950	50.0	0.950				01/30/14 20:25	
Carbon tetrachloride	<1.35	5.00		ug/L			01/30/14 20:25	;
Chlorobenzene	<3.75	5.00		ug/L			01/30/14 20:25	
Chlorobromomethane	<4.35	5.00		ug/L			01/30/14 20:25	
Chlorodibromomethane	<1.60	2.50		ug/L			01/30/14 20:25	;
Chloroethane	<1.60	10.0		ug/L			01/30/14 20:25	
Chloroform	<1.70	5.00		ug/L			01/30/14 20:25	
Chloromethane	<1.75	10.0		ug/L			01/30/14 20:25	
cis-1,2-Dichloroethene	<4.05	5.00		ug/L			01/30/14 20:25	
cis-1,3-Dichloropropene	<1.80	2.00		ug/L			01/30/14 20:25	
Dichlorobromomethane	<1.95	2.50		ug/L			01/30/14 20:25	
Dichlorodifluoromethane	<3.40	5.00		ug/L			01/30/14 20:25	
	<3.60			-				
Ethyl ether		5.00		ug/L			01/30/14 20:25	
Ethylpenzene Ethylpen Dibromide	<3.70	5.00		ug/L			01/30/14 20:25	;
Ethylene Dibromide	<3.65	5.00		ug/L			01/30/14 20:25	
Hexachlorobutadiene	<1.40	2.00		ug/L			01/30/14 20:25	
Isopropyl ether	<2.95	50.0		ug/L			01/30/14 20:25	
Isopropylbenzene	<3.95	5.00		ug/L			01/30/14 20:25	;
Methyl tert-butyl ether	2.57 J	5.00	0.800				01/30/14 20:25	
Methylene Chloride m-Xylene & p-Xylene	<2.20 <3.30	5.00 10.0	2.20	ug/L ug/L			01/30/14 20:25 01/30/14 20:25	:

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

2,5-Dibromotoluene (pid)

Client Sample ID: WCMW-2

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-9

Matrix: Water

Date Collected: 01/27/14 13:06 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<2.15	25.0	2.15	ug/L			01/30/14 20:25	5
n-Butylbenzene	<3.20	5.00	3.20	ug/L			01/30/14 20:25	5
N-Propylbenzene	<3.45	5.00	3.45	ug/L			01/30/14 20:25	5
o-Xylene	<3.80	5.00	3.80	ug/L			01/30/14 20:25	5
sec-Butylbenzene	<3.75	5.00	3.75	ug/L			01/30/14 20:25	5
Styrene	<3.65	5.00	3.65	ug/L			01/30/14 20:25	5
Tert-amyl methyl ether	<1.35	25.0	1.35	ug/L			01/30/14 20:25	5
Tert-butyl ethyl ether	<1.47	25.0	1.47	ug/L			01/30/14 20:25	5
tert-Butylbenzene	<4.05	5.00	4.05	ug/L			01/30/14 20:25	5
Tetrachloroethene	<1.80	5.00	1.80	ug/L			01/30/14 20:25	5
Tetrahydrofuran	<6.25 *	50.0	6.25	ug/L			01/30/14 20:25	5
Toluene	<2.55	5.00	2.55	ug/L			01/30/14 20:25	5
trans-1,2-Dichloroethene	<4.50	5.00	4.50	ug/L			01/30/14 20:25	5
trans-1,3-Dichloropropene	<1.85	2.00	1.85	ug/L			01/30/14 20:25	5
Trichloroethene	<2.30	5.00	2.30	ug/L			01/30/14 20:25	5
Trichlorofluoromethane	<4.40	5.00	4.40	ug/L			01/30/14 20:25	5
Vinyl chloride	<4.50	5.00	4.50	ug/L			01/30/14 20:25	5
Dibromomethane	<2.05	5.00	2.05	ug/L			01/30/14 20:25	5
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97	70 - 130			_		01/30/14 20:25	5
1,2-Dichloroethane-d4 (Surr)	102	70 - 130					01/30/14 20:25	5
4-Bromofluorobenzene (Surr)	98	70 - 130					01/30/14 20:25	5

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
C5-C8 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1	
C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1	

Method: MAVPH - Massachuset	ts - Volatile Pet	roleum Hyd	drocarbons (GC	<b>C</b> )					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	3.91	J	5.00	1.50	ug/L			01/29/14 17:17	1
C9-C10 Aromatics	8.04		5.00	0.500	ug/L			01/29/14 17:17	1
C9-C12 Aliphatics (unadjusted)	3.43	J	5.00	1.50	ug/L			01/29/14 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	96		70 - 130			=		01/29/14 17:17	1

70 - 130

97

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Acenaphthene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Acenaphthylene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Anthracene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Benzo[a]anthracene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Benzo[a]pyrene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Benzo[b]fluoranthene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Benzo[g,h,i]perylene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Benzo[k]fluoranthene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Chrysene	<10.4	10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1

TestAmerica Buffalo

01/29/14 17:17

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-9

Matrix: Water

**Client Sample ID: WCMW-2** 

Date Collected: 01/27/14 13:06 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	<10.4		10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Fluoranthene	<10.4		10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Fluorene	<10.4		10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Indeno[1,2,3-cd]pyrene	<10.4		10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Naphthalene	<10.4		10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Phenanthrene	<10.4		10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
Pyrene	<10.4		10.4	2.07	ug/L		01/30/14 05:48	01/31/14 15:50	1
C11-C22 Aromatics (unadjusted)	15.9	JB	51.8	10.4	ug/L		01/30/14 05:48	01/31/14 15:50	1
C19-C36 Aliphatics	<51.8		51.8	10.4	ug/L		01/30/14 05:48	01/31/14 15:50	1
C9-C18 Aliphatics	<51.8		51.8	10.4	ug/L		01/30/14 05:48	01/31/14 15:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	34	X	40 - 140				01/30/14 05:48	01/31/14 15:50	1
2-Bromonaphthalene	79		40 - 140				01/30/14 05:48	01/31/14 15:50	1
2-Fluorobiphenyl	88		40 - 140				01/30/14 05:48	01/31/14 15:50	1
o-Terphenyl	50		40 - 140				01/30/14 05:48	01/31/14 15:50	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:21	1
Arsenic	7.22	J	10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:21	1
Barium	99.4		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:21	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:21	1
Cadmium	0.640	J	1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:21	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:21	1
Nickel	5.72	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:21	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:21	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:40	1
Zinc	57.7	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:40	1
Lead	4.72	J	5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:21	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:21	1
Antimony	26.2		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:21	1

Method: 7470A - Mercury (CVAA) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:30	1

Client Sample ID: WCMW-4 Lab Sample ID: 480-53903-10 Date Collected: 01/27/14 13:45 **Matrix: Water** 

Date Received: 01/29/14 01:30

Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.350		1.00	0.350	ug/L			01/31/14 02:09	1
1,1,1-Trichloroethane	<0.820		1.00	0.820	ug/L			01/31/14 02:09	1
1,1,2,2-Tetrachloroethane	<0.210		0.500	0.210	ug/L			01/31/14 02:09	1
1,1,2-Trichloroethane	<0.230		1.00	0.230	ug/L			01/31/14 02:09	1
1,1-Dichloroethane	<0.380		1.00	0.380	ug/L			01/31/14 02:09	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-10

Matrix: Water

Client Sample ID: WCMW-4

Date Collected: 01/27/14 13:45 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1-Dichloroethene	<0.290	1.00	0.290	ug/L			01/31/14 02:09	
1,1-Dichloropropene	<0.720	1.00	0.720	<del>.</del>			01/31/14 02:09	
1,2,3-Trichlorobenzene	<0.410	1.00	0.410				01/31/14 02:09	
1,2,3-Trichloropropane	<0.890	1.00	0.890				01/31/14 02:09	
1,2,4-Trichlorobenzene	<0.410	1.00	0.410				01/31/14 02:09	
1,2,4-Trimethylbenzene	<0.750	1.00	0.750	-			01/31/14 02:09	
1,2-Dibromo-3-Chloropropane	<0.390	5.00	0.390	_			01/31/14 02:09	
1,2-Dichlorobenzene	<0.790	1.00	0.790				01/31/14 02:09	
1.2-Dichloroethane	<0.210	1.00	0.210	-			01/31/14 02:09	
1,2-Dichloropropane	<0.720	1.00	0.720				01/31/14 02:09	
1,3,5-Trimethylbenzene	<0.770	1.00	0.770				01/31/14 02:09	
1,3-Dichlorobenzene	<0.780	1.00	0.780	-			01/31/14 02:09	
1,3-Dichloropropane	<0.750	1.00	0.750				01/31/14 02:09	
1,4-Dichlorobenzene	<0.840	1.00	0.840				01/31/14 02:09	
1,4-Dioxane	<9.32	50.0		ug/L			01/31/14 02:09	
2,2-Dickloropropane	<0.400	1.00	0.400	_			01/31/14 02:09	
	<1.32	10.0		ug/L ug/L			01/31/14 02:09	
2-Butanone (MEK)								
2-Chlorotoluene	<0.860	1.00	0.860				01/31/14 02:09	
2-Hexanone	<1.24	10.0		ug/L			01/31/14 02:09	
1-Chlorotoluene	<0.840	1.00	0.840	-			01/31/14 02:09	
I-Isopropyltoluene	<0.310	1.00	0.310	_			01/31/14 02:09	
4-Methyl-2-pentanone (MIBK)	<2.10	10.0		ug/L			01/31/14 02:09	
Acetone	<3.00	50.0		ug/L			01/31/14 02:09	
Benzene -	<0.410	1.00	0.410				01/31/14 02:09	
Bromobenzene	<0.800	1.00	0.800				01/31/14 02:09	
Bromoform	<0.260	1.00	0.260	-			01/31/14 02:09	
Bromomethane	<0.690	2.00	0.690	-			01/31/14 02:09	
Carbon disulfide	<0.190	10.0	0.190	<del>.</del>			01/31/14 02:09	
Carbon tetrachloride	<0.270	1.00	0.270	ug/L			01/31/14 02:09	
Chlorobenzene	<0.750	1.00	0.750	ug/L			01/31/14 02:09	
Chlorobromomethane	<0.870	1.00	0.870	<del>.</del>			01/31/14 02:09	
Chlorodibromomethane	<0.320	0.500	0.320	ug/L			01/31/14 02:09	
Chloroethane	<0.320	2.00	0.320	ug/L			01/31/14 02:09	
Chloroform	<0.340	1.00	0.340	ug/L			01/31/14 02:09	
Chloromethane	<0.350	2.00	0.350	ug/L			01/31/14 02:09	
cis-1,2-Dichloroethene	<0.810	1.00	0.810	ug/L			01/31/14 02:09	
cis-1,3-Dichloropropene	<0.360	0.400	0.360	ug/L			01/31/14 02:09	
Dichlorobromomethane	<0.390	0.500	0.390	ug/L			01/31/14 02:09	
Dichlorodifluoromethane	<0.680	1.00	0.680	ug/L			01/31/14 02:09	
Ethyl ether	<0.720	1.00	0.720	ug/L			01/31/14 02:09	
Ethylbenzene	<0.740	1.00	0.740	ug/L			01/31/14 02:09	
Ethylene Dibromide	<0.730	1.00	0.730	ug/L			01/31/14 02:09	
Hexachlorobutadiene	<0.280	0.400	0.280	ug/L			01/31/14 02:09	
sopropyl ether	<0.590	10.0	0.590	<del>.</del>			01/31/14 02:09	
sopropylbenzene	<0.790	1.00	0.790				01/31/14 02:09	
Methyl tert-butyl ether	<0.160	1.00	0.160	-			01/31/14 02:09	
Methylene Chloride	<0.440	1.00	0.440	<del>.</del>			01/31/14 02:09	
m-Xylene & p-Xylene	<0.660	2.00	0.660				01/31/14 02:09	
Naphthalene	<0.430	5.00	0.430	-			01/31/14 02:09	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-10

Matrix: Water

Client Sample ID: WCMW-4 Date Collected: 01/27/14 13:45

Date Received: 01/29/14 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued) Dil Fac Analyte Result Qualifier RLMDL Unit D Prepared Analyzed n-Butylbenzene <0.640 1.00 0.640 ug/L 01/31/14 02:09 N-Propylbenzene <0.690 1.00 01/31/14 02:09 0.690 ug/L o-Xylene <0.760 1.00 0.760 ug/L 01/31/14 02:09 sec-Butylbenzene < 0.750 1.00 0.750 ug/L 01/31/14 02:09 Styrene < 0.730 1.00 0.730 ug/L 01/31/14 02:09 < 0.270 5.00 0.270 ug/L 01/31/14 02:09 Tert-amyl methyl ether Tert-butyl ethyl ether < 0.294 5.00 0.294 ug/L 01/31/14 02:09 tert-Butylbenzene <0.810 1.00 0.810 ug/L 01/31/14 02:09 Tetrachloroethene 1.72 1.00 0.360 ug/L 01/31/14 02:09 Tetrahydrofuran 10.0 01/31/14 02:09 <1.25 1.25 ug/L Toluene < 0.510 1.00 0.510 ug/L 01/31/14 02:09 trans-1,2-Dichloroethene <0.900 1.00 0.900 ug/L 01/31/14 02:09 trans-1,3-Dichloropropene < 0.370 0.400 0.370 ug/L 01/31/14 02:09 **Trichloroethene** 0.479 J 1.00 0.460 ug/L 01/31/14 02:09 1.00 0.880 ug/L Trichlorofluoromethane <0.880 01/31/14 02:09 Vinyl chloride <0.900 1.00 0.900 ug/L 01/31/14 02:09 Dibromomethane <0.410 1.00 0.410 ug/L 01/31/14 02:09

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99	70 - 130		01/31/14 02:09	1
1,2-Dichloroethane-d4 (Surr)	101	70 - 130		01/31/14 02:09	1
4-Bromofluorobenzene (Surr)	98	70 - 130		01/31/14 02:09	1

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)									
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
C5-C8 Aliphatics (adjusted)	<5.00	5.00	1.50 ug/L			01/29/14 13:05	1		
C9-C12 Aliphatics (adjusted)	<5.00	5.00	1.50 ug/L			01/29/14 13:05	1		

Method: MAVPH - Massachusetts	- Volatile Pet	roleum Hyd	rocarbons (GC	<b>;</b> )					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 17:56	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 17:56	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 17:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	96		70 - 130			-		01/29/14 17:56	1
2,5-Dibromotoluene (pid)	98		70 - 130					01/29/14 17:56	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Acenaphthene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Acenaphthylene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Anthracene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Benzo[a]anthracene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Benzo[a]pyrene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Benzo[b]fluoranthene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Benzo[g,h,i]perylene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Benzo[k]fluoranthene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Chrysene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Dibenz(a,h)anthracene	<9.56	9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-10

Matrix: Water

Client Sample ID: WCMW-4

Date Collected: 01/27/14 13:45 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<9.56		9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Fluorene	<9.56		9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Indeno[1,2,3-cd]pyrene	<9.56		9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Naphthalene	<9.56		9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Phenanthrene	<9.56		9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
Pyrene	<9.56		9.56	1.91	ug/L		01/30/14 05:48	01/31/14 16:19	1
C11-C22 Aromatics (unadjusted)	16.6	JB	47.8	9.56	ug/L		01/30/14 05:48	01/31/14 16:19	1
C19-C36 Aliphatics	12.7	JB	47.8	9.56	ug/L		01/30/14 05:48	01/31/14 16:19	1
C9-C18 Aliphatics	<47.8		47.8	9.56	ug/L		01/30/14 05:48	01/31/14 16:19	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	43		40 - 140				01/30/14 05:48	01/31/14 16:19	1
2-Bromonaphthalene	77		40 - 140				01/30/14 05:48	01/31/14 16:19	1
2-Fluorobiphenyl	91		40 - 140				01/30/14 05:48	01/31/14 16:19	1
o-Terphenyl	68		40 - 140				01/30/14 05:48	01/31/14 16:19	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:24	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:24	1
Barium	53.7		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:24	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:24	1
Cadmium	1.97		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:24	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:24	1
Nickel	50.2		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:24	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:24	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:42	1
Zinc	636	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:42	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:24	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:24	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:24	1

Method: 7470A - Mercury (CVAA) -	Dissolved							
Analyte	Result Qualifier	RL	MDL (	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.120	0.200	0.120 t	ug/L	_	01/29/14 07:45	01/29/14 12:33	1

Client Sample ID: WCMW-1

Date Collected: 01/27/14 14:10

Lab Sample ID: 480-53903-11

Matrix: Water

Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.350	1.00	0.350	ug/L			01/31/14 02:33	1
1,1,1-Trichloroethane	<0.820	1.00	0.820	ug/L			01/31/14 02:33	1
1,1,2,2-Tetrachloroethane	<0.210	0.500	0.210	ug/L			01/31/14 02:33	1
1,1,2-Trichloroethane	<0.230	1.00	0.230	ug/L			01/31/14 02:33	1
1,1-Dichloroethane	<0.380	1.00	0.380	ug/L			01/31/14 02:33	1
1,1-Dichloroethene	<0.290	1.00	0.290	ug/L			01/31/14 02:33	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-11

Matrix: Water

**Client Sample ID: WCMW-1** 

Date Collected: 01/27/14 14:10 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1-Dichloropropene	<0.720	1.00	0.720	ug/L			01/31/14 02:33	
1,2,3-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 02:33	
1,2,3-Trichloropropane	<0.890	1.00	0.890	ug/L			01/31/14 02:33	
1,2,4-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 02:33	
1,2,4-Trimethylbenzene	<0.750	1.00	0.750	ug/L			01/31/14 02:33	
1,2-Dibromo-3-Chloropropane	<0.390	5.00	0.390	ug/L			01/31/14 02:33	
1,2-Dichlorobenzene	<0.790	1.00	0.790	ug/L			01/31/14 02:33	
1,2-Dichloroethane	<0.210	1.00	0.210	ug/L			01/31/14 02:33	
1,2-Dichloropropane	<0.720	1.00	0.720	ug/L			01/31/14 02:33	
1,3,5-Trimethylbenzene	<0.770	1.00	0.770	ug/L			01/31/14 02:33	
1,3-Dichlorobenzene	<0.780	1.00	0.780	ug/L			01/31/14 02:33	
1,3-Dichloropropane	<0.750	1.00	0.750	ug/L			01/31/14 02:33	
1,4-Dichlorobenzene	<0.840	1.00	0.840	ug/L			01/31/14 02:33	
1,4-Dioxane	<9.32	50.0	9.32	ug/L			01/31/14 02:33	
2,2-Dichloropropane	<0.400	1.00	0.400	ug/L			01/31/14 02:33	
2-Butanone (MEK)	<1.32	10.0	1.32	ug/L			01/31/14 02:33	
2-Chlorotoluene	<0.860	1.00	0.860	ug/L			01/31/14 02:33	
2-Hexanone	<1.24	10.0	1.24	ug/L			01/31/14 02:33	
4-Chlorotoluene	<0.840	1.00	0.840	ug/L			01/31/14 02:33	
4-Isopropyltoluene	<0.310	1.00	0.310	-			01/31/14 02:33	
4-Methyl-2-pentanone (MIBK)	<2.10	10.0		ug/L			01/31/14 02:33	
Acetone	<3.00	50.0		ug/L			01/31/14 02:33	
Benzene	<0.410	1.00	0.410				01/31/14 02:33	
Bromobenzene	<0.800	1.00	0.800				01/31/14 02:33	
Bromoform	<0.260	1.00	0.260				01/31/14 02:33	
Bromomethane	<0.690	2.00	0.690	•			01/31/14 02:33	
Carbon disulfide	<0.190	10.0	0.190				01/31/14 02:33	
Carbon tetrachloride	<0.270	1.00	0.270				01/31/14 02:33	
Chlorobenzene	<0.750	1.00	0.750	-			01/31/14 02:33	
Chlorobromomethane	<0.870	1.00	0.870				01/31/14 02:33	
Chlorodibromomethane	<0.320	0.500	0.320				01/31/14 02:33	
Chloroethane	<0.320	2.00	0.320				01/31/14 02:33	
Chloroform	<0.340	1.00	0.340				01/31/14 02:33	
Chloromethane	<0.350	2.00	0.350				01/31/14 02:33	
cis-1,2-Dichloroethene	<0.810	1.00	0.810	•			01/31/14 02:33	
cis-1,3-Dichloropropene	<0.360	0.400	0.360				01/31/14 02:33	
Dichlorobromomethane	<0.390	0.500	0.390				01/31/14 02:33	
Dichlorodifluoromethane	<0.680	1.00	0.680				01/31/14 02:33	
Ethyl ether	<0.720	1.00	0.720	_			01/31/14 02:33	
							01/31/14 02:33	
Ethylpenzene	<0.740 <0.730	1.00 1.00	0.740 0.730	-				
Ethylene Dibromide Hexachlorobutadiene		0.400		•			01/31/14 02:33	
	<0.280		0.280	<del>.</del>			01/31/14 02:33	
Isopropyl ether	<0.590	10.0	0.590				01/31/14 02:33	
Isopropylbenzene	<0.790	1.00	0.790	-			01/31/14 02:33	
Methyl tert-butyl ether	<0.160	1.00	0.160				01/31/14 02:33	
Methylene Chloride	<0.440	1.00	0.440	-			01/31/14 02:33	
m-Xylene & p-Xylene	<0.660	2.00	0.660	_			01/31/14 02:33	
Naphthalene n-Butylbenzene	<0.430 <0.640	5.00 1.00	0.430	ug/L ug/L			01/31/14 02:33 01/31/14 02:33	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

**Client Sample ID: WCMW-1** 

Date Collected: 01/27/14 14:10

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-11

Matrix: Water

Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	<0.690		1.00	0.690	ug/L			01/31/14 02:33	1
o-Xylene	<0.760		1.00	0.760	ug/L			01/31/14 02:33	1
sec-Butylbenzene	<0.750		1.00	0.750	ug/L			01/31/14 02:33	1
Styrene	<0.730		1.00	0.730	ug/L			01/31/14 02:33	1
Tert-amyl methyl ether	<0.270		5.00	0.270	ug/L			01/31/14 02:33	1
Tert-butyl ethyl ether	<0.294		5.00	0.294	ug/L			01/31/14 02:33	1
tert-Butylbenzene	<0.810		1.00	0.810	ug/L			01/31/14 02:33	1
Tetrachloroethene	2.32		1.00	0.360	ug/L			01/31/14 02:33	1
Tetrahydrofuran	<1.25	*	10.0	1.25	ug/L			01/31/14 02:33	1
Toluene	<0.510		1.00	0.510	ug/L			01/31/14 02:33	1
trans-1,2-Dichloroethene	<0.900		1.00	0.900	ug/L			01/31/14 02:33	1
trans-1,3-Dichloropropene	<0.370		0.400	0.370	ug/L			01/31/14 02:33	1
Trichloroethene	0.746	J	1.00	0.460	ug/L			01/31/14 02:33	1
Trichlorofluoromethane	<0.880		1.00	0.880	ug/L			01/31/14 02:33	1
Vinyl chloride	<0.900		1.00	0.900	ug/L			01/31/14 02:33	1
Dibromomethane	<0.410		1.00	0.410	ug/L			01/31/14 02:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130			_		01/31/14 02:33	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/31/14 02:33	1
4-Bromofluorobenzene (Surr)	99		70 - 130					01/31/14 02:33	1

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	C5-C8 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
	C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1

Method: MAVPH - Massachusetts	- Volatile Pet	roleum Hyd	rocarbons (GC	;)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 18:34	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 18:34	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	96		70 - 130			•		01/29/14 18:34	1
2,5-Dibromotoluene (pid)	98		70 - 130					01/29/14 18:34	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Acenaphthene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Acenaphthylene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Anthracene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Benzo[a]anthracene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Benzo[a]pyrene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Benzo[b]fluoranthene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Benzo[g,h,i]perylene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Benzo[k]fluoranthene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Chrysene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Dibenz(a,h)anthracene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Fluoranthene	<9.77	9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-11

Matrix: Water

**Client Sample ID: WCMW-1** Date Collected: 01/27/14 14:10

Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<9.77		9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Indeno[1,2,3-cd]pyrene	<9.77		9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Naphthalene	<9.77		9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Phenanthrene	<9.77		9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
Pyrene	<9.77		9.77	1.95	ug/L		01/30/14 05:48	01/31/14 16:49	1
C11-C22 Aromatics (unadjusted)	13.9	JB	48.9	9.77	ug/L		01/30/14 05:48	01/31/14 16:49	1
C19-C36 Aliphatics	27.8	JB	48.9	9.77	ug/L		01/30/14 05:48	01/31/14 16:49	1
C9-C18 Aliphatics	<48.9		48.9	9.77	ug/L		01/30/14 05:48	01/31/14 16:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	51		40 - 140				01/30/14 05:48	01/31/14 16:49	1
2-Bromonaphthalene	71		40 - 140				01/30/14 05:48	01/31/14 16:49	1
2-Fluorobiphenyl	81		40 - 140				01/30/14 05:48	01/31/14 16:49	1
o-Terphenyl	68		40 - 140				01/30/14 05:48	01/31/14 16:49	1

Method: 6010 - Metals (IC Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:27	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:27	1
Barium	58.3		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:27	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:27	1
Cadmium	0.940	J	1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:27	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:27	1
Nickel	47.7		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:27	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:27	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:45	1
Zinc	51.4	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:45	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:27	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:27	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:27	1

Method: 7470A - Mercury (CVAA) - Dissolved										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:35	1

**Client Sample ID: WCMW-3** Lab Sample ID: 480-53903-12

Date Collected: 01/27/14 14:57 Matrix: Water Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.350		1.00	0.350	ug/L			01/31/14 02:56	1
1,1,1-Trichloroethane	<0.820		1.00	0.820	ug/L			01/31/14 02:56	1
1,1,2,2-Tetrachloroethane	<0.210	(	0.500	0.210	ug/L			01/31/14 02:56	1
1,1,2-Trichloroethane	<0.230		1.00	0.230	ug/L			01/31/14 02:56	1
1,1-Dichloroethane	<0.380		1.00	0.380	ug/L			01/31/14 02:56	1
1,1-Dichloroethene	<0.290		1.00	0.290	ug/L			01/31/14 02:56	1
1,1-Dichloropropene	<0.720		1.00	0.720	ug/L			01/31/14 02:56	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-12

Matrix: Water

**Client Sample ID: WCMW-3** 

Date Collected: 01/27/14 14:57 Date Received: 01/29/14 01:30

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TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-12

**Client Sample ID: WCMW-3** Date Collected: 01/27/14 14:57 Matrix: Water

Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.760		1.00	0.760	ug/L			01/31/14 02:56	1
sec-Butylbenzene	<0.750		1.00	0.750	ug/L			01/31/14 02:56	1
Styrene	<0.730		1.00	0.730	ug/L			01/31/14 02:56	1
Tert-amyl methyl ether	<0.270		5.00	0.270	ug/L			01/31/14 02:56	1
Tert-butyl ethyl ether	<0.294		5.00	0.294	ug/L			01/31/14 02:56	1
tert-Butylbenzene	<0.810		1.00	0.810	ug/L			01/31/14 02:56	1
Tetrachloroethene	3.50		1.00	0.360	ug/L			01/31/14 02:56	1
Tetrahydrofuran	<1.25	*	10.0	1.25	ug/L			01/31/14 02:56	1
Toluene	<0.510		1.00	0.510	ug/L			01/31/14 02:56	1
trans-1,2-Dichloroethene	<0.900		1.00	0.900	ug/L			01/31/14 02:56	1
trans-1,3-Dichloropropene	<0.370		0.400	0.370	ug/L			01/31/14 02:56	1
Trichloroethene	1.03		1.00	0.460	ug/L			01/31/14 02:56	1
Trichlorofluoromethane	<0.880		1.00	0.880	ug/L			01/31/14 02:56	1
Vinyl chloride	<0.900		1.00	0.900	ug/L			01/31/14 02:56	1
Dibromomethane	<0.410		1.00	0.410	ug/L			01/31/14 02:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130			_		01/31/14 02:56	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/31/14 02:56	1
4-Bromofluorobenzene (Surr)	99		70 - 130					01/31/14 02:56	1

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)									
	Analyte	Result Qual	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	C5-C8 Aliphatics (adjusted)	<5.00	5.00	1.50	ug/L			01/29/14 13:05	1
	C9-C12 Aliphatics (adjusted)	<5.00	5.00	1.50	ug/L			01/29/14 13:05	1

Method: MAVPH - Massachuset	ts - Volatile Pet	roleum Hyd	rocarbons (GC	<b>;</b> )					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<5.00	·	5.00	1.50	ug/L			01/29/14 19:13	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 19:13	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 19:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	96		70 - 130			-		01/29/14 19:13	1
2,5-Dibromotoluene (pid)	98		70 - 130					01/29/14 19:13	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Acenaphthene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Acenaphthylene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Anthracene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Benzo[a]anthracene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Benzo[a]pyrene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Benzo[b]fluoranthene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Benzo[g,h,i]perylene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Benzo[k]fluoranthene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Chrysene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Dibenz(a,h)anthracene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Fluoranthene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1
Fluorene	<9.51	9.51	1.90	ug/L		01/30/14 05:48	01/31/14 17:18	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-12

Matrix: Water

**Client Sample ID: WCMW-3** Date Collected: 01/27/14 14:57 Date Received: 01/29/14 01:30

Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued) Dil Fac Analyte Result Qualifier MDL Unit D Prepared Analyzed Indeno[1,2,3-cd]pyrene <9.51 9.51 1.90 ug/L 01/30/14 05:48 01/31/14 17:18 Naphthalene <9.51 9.51 01/30/14 05:48 ug/L 01/31/14 17:18 1.90 Phenanthrene <9.51 9.51 1.90 ug/L 01/30/14 05:48 01/31/14 17:18 01/31/14 17:18 Pyrene <9.51 9.51 1.90 ug/L 01/30/14 05:48 C11-C22 Aromatics (unadjusted) 47.5 9.51 ug/L 01/30/14 05:48 01/31/14 17:18 17.6 JB 47.5 9.51 ug/L 01/30/14 05:48 01/31/14 17:18 C19-C36 Aliphatics 18.3 JB **C9-C18 Aliphatics** 13.1 J 47.5 9.51 ug/L 01/30/14 05:48 01/31/14 17:18 Analyte Result Qualifier RL RL Unit D Dil Fac Prepared Analyzed C11-C22 Aromatics (Adjusted) <50.0 50.0 50.0 ug/L 02/03/14 10:58 %Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 1-Chlorooctadecane 35 X 40 - 140 01/30/14 05:48 01/31/14 17:18 61 2-Bromonaphthalene 40 - 140 01/30/14 05:48 01/31/14 17:18 2-Fluorobiphenyl 83 40 - 140 01/30/14 05:48 01/31/14 17:18 59 40 - 140 01/30/14 05:48 01/31/14 17:18 o-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:30	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:30	1
Barium	51.7		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:30	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:30	1
Cadmium	0.700	J	1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:30	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:30	1
Nickel	9.46	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:30	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:30	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:47	1
Zinc	261	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:47	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:30	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:30	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:30	1

Method: 7470A - Mercury (CVAA) - Dissolved									
	Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
	Mercury	<0.120	0.200	0.120 ug/L		01/29/14 07:45	01/29/14 12:36	1	

Client Sample ID: MW-3R Lab Sample ID: 480-53903-13 Date Collected: 01/27/14 15:41 Matrix: Water

Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.75		5.00	1.75	ug/L			01/31/14 03:21	5
1,1,1-Trichloroethane	<4.10		5.00	4.10	ug/L			01/31/14 03:21	5
1,1,2,2-Tetrachloroethane	<1.05		2.50	1.05	ug/L			01/31/14 03:21	5
1,1,2-Trichloroethane	<1.15		5.00	1.15	ug/L			01/31/14 03:21	5
1,1-Dichloroethane	<1.90		5.00	1.90	ug/L			01/31/14 03:21	5
1,1-Dichloroethene	<1.45		5.00	1.45	ug/L			01/31/14 03:21	5
1,1-Dichloropropene	<3.60		5.00	3.60	ug/L			01/31/14 03:21	5
1,2,3-Trichlorobenzene	<2.05		5.00	2.05	ug/L			01/31/14 03:21	5

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-13

Matrix: Water

**Client Sample ID: MW-3R** 

Date Collected: 01/27/14 15:41 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D Pre	epared	Analyzed	Dil Fa
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L			01/31/14 03:21	
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/31/14 03:21	
1,2,4-Trimethylbenzene	<3.75	5.00	3.75	ug/L			01/31/14 03:21	
1,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L			01/31/14 03:21	
1,2-Dichlorobenzene	<3.95	5.00	3.95	ug/L			01/31/14 03:21	
1,2-Dichloroethane	<1.05	5.00	1.05	ug/L			01/31/14 03:21	
1,2-Dichloropropane	<3.60	5.00	3.60	ug/L			01/31/14 03:21	
1,3,5-Trimethylbenzene	<3.85	5.00	3.85	ug/L			01/31/14 03:21	
1,3-Dichlorobenzene	<3.90	5.00	3.90	ug/L			01/31/14 03:21	
1,3-Dichloropropane	<3.75	5.00	3.75	ug/L			01/31/14 03:21	
1,4-Dichlorobenzene	<4.20	5.00	4.20	ug/L			01/31/14 03:21	
1,4-Dioxane	<46.6	250	46.6				01/31/14 03:21	
2,2-Dichloropropane	<2.00	5.00	2.00	ug/L			01/31/14 03:21	
2-Butanone (MEK)	<6.60	50.0	6.60	ug/L			01/31/14 03:21	
2-Chlorotoluene	<4.30	5.00	4.30	ug/L			01/31/14 03:21	
2-Hexanone	<6.20	50.0	6.20				01/31/14 03:21	
4-Chlorotoluene	<4.20	5.00	4.20	<del>.</del>			01/31/14 03:21	
4-Isopropyltoluene	<1.55	5.00	1.55				01/31/14 03:21	
4-Methyl-2-pentanone (MIBK)	<10.5	50.0		ug/L			01/31/14 03:21	
Acetone	<15.0	250	15.0				01/31/14 03:21	
Benzene	<2.05	5.00	2.05	-			01/31/14 03:21	
Bromobenzene	<4.00	5.00	4.00	_			01/31/14 03:21	
Bromoform	<1.30	5.00	1.30				01/31/14 03:21	
Bromomethane	<3.45	10.0	3.45				01/31/14 03:21	
Carbon disulfide	<0.950	50.0	0.950	_			01/31/14 03:21	
Carbon tetrachloride	<1.35	5.00	1.35				01/31/14 03:21	;
Chlorobenzene	<3.75	5.00	3.75	_			01/31/14 03:21	
Chlorobromomethane	<4.35	5.00	4.35	-			01/31/14 03:21	
Chlorodibromomethane	<1.60	2.50	1.60	<del>.</del>			01/31/14 03:21	
Chloroethane	<1.60	10.0	1.60				01/31/14 03:21	
Chloroform	<1.70	5.00	1.70				01/31/14 03:21	
Chloromethane	<1.75	10.0	1.75				01/31/14 03:21	;
cis-1,2-Dichloroethene	<4.05	5.00	4.05	-			01/31/14 03:21	
cis-1,3-Dichloropropene	<1.80	2.00	1.80	_			01/31/14 03:21	
Dichlorobromomethane	<1.95	2.50	1.95				01/31/14 03:21	
Dichlorodifluoromethane	<3.40	5.00		ug/L			01/31/14 03:21	
Ethyl ether	<3.60	5.00		ug/L			01/31/14 03:21	
Ethylbenzene	<3.70	5.00		ug/L			01/31/14 03:21	
Ethylene Dibromide	<3.65	5.00		ug/L			01/31/14 03:21	
Hexachlorobutadiene	<1.40	2.00		ug/L			01/31/14 03:21	
Isopropyl ether	<2.95	50.0		ug/L ug/L			01/31/14 03:21	
Isopropylbenzene	<3.95	5.00	3.95	_			01/31/14 03:21	•
Methyl tert-butyl ether	<0.800	5.00	0.800	_			01/31/14 03:21	
Methylene Chloride	<2.20	5.00		ug/L ug/L			01/31/14 03:21	
m-Xylene & p-Xylene	<3.30	10.0		ug/L ug/L			01/31/14 03:21	
Naphthalene	<2.15	25.0		ug/L ug/L			01/31/14 03:21	;
n-Butylbenzene	<3.20	5.00		ug/L ug/L			01/31/14 03:21	
-								;
N-Propylbenzene o-Xylene	<3.45 <3.80	5.00 5.00	3.45	ug/L			01/31/14 03:21 01/31/14 03:21	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: MW-3R

Date Collected: 01/27/14 15:41

Date Received: 01/29/14 01:30

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<3.75		5.00	3.75	ug/L			01/31/14 03:21	5
Styrene	<3.65		5.00	3.65	ug/L			01/31/14 03:21	5
Tert-amyl methyl ether	<1.35		25.0	1.35	ug/L			01/31/14 03:21	5
Tert-butyl ethyl ether	<1.47		25.0	1.47	ug/L			01/31/14 03:21	5
tert-Butylbenzene	<4.05		5.00	4.05	ug/L			01/31/14 03:21	5
Tetrachloroethene	7.92		5.00	1.80	ug/L			01/31/14 03:21	5
Tetrahydrofuran	<6.25	*	50.0	6.25	ug/L			01/31/14 03:21	5
Toluene	<2.55		5.00	2.55	ug/L			01/31/14 03:21	5
trans-1,2-Dichloroethene	<4.50		5.00	4.50	ug/L			01/31/14 03:21	5
trans-1,3-Dichloropropene	<1.85		2.00	1.85	ug/L			01/31/14 03:21	5
Trichloroethene	4.08	J	5.00	2.30	ug/L			01/31/14 03:21	5
Trichlorofluoromethane	<4.40		5.00	4.40	ug/L			01/31/14 03:21	5
Vinyl chloride	<4.50		5.00	4.50	ug/L			01/31/14 03:21	5
Dibromomethane	<2.05		5.00	2.05	ug/L			01/31/14 03:21	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130			-		01/31/14 03:21	5
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/31/14 03:21	5
4-Bromofluorobenzene (Surr)	102		70 - 130					01/31/14 03:21	5

Method: MA VPH - Massachusetts	- Volatile Pet	troleum Hydr	ocarbons (GC	)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1

Method: MAVPH - Massachusett	s - Volatile Pet	roleum Hyd	rocarbons (GC	<b>;</b> )					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	2.17	J	5.00	1.50	ug/L			01/29/14 19:51	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 19:51	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 19:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	93		70 - 130			-		01/29/14 19:51	1
2,5-Dibromotoluene (pid)	97		70 - 130					01/29/14 19:51	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Acenaphthene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Acenaphthylene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Anthracene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Benzo[a]anthracene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Benzo[a]pyrene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Benzo[b]fluoranthene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Benzo[g,h,i]perylene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Benzo[k]fluoranthene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Chrysene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Dibenz(a,h)anthracene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Fluoranthene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Fluorene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Indeno[1,2,3-cd]pyrene	<9.53	9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-13

Matrix: Water

Client Sample ID: MW-3R Date Collected: 01/27/14 15:41 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Phenanthrene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
Pyrene	<9.53		9.53	1.91	ug/L		01/30/14 05:48	01/31/14 17:48	1
C11-C22 Aromatics (unadjusted)	17.2	J B	47.7	9.53	ug/L		01/30/14 05:48	01/31/14 17:48	1
C19-C36 Aliphatics	22.9	JB	47.7	9.53	ug/L		01/30/14 05:48	01/31/14 17:48	1
C9-C18 Aliphatics	19.5	J	47.7	9.53	ug/L		01/30/14 05:48	01/31/14 17:48	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	8	X	40 - 140				01/30/14 05:48	01/31/14 17:48	1
2-Bromonaphthalene	77		40 - 140				01/30/14 05:48	01/31/14 17:48	1
2-Fluorobiphenyl	81		40 - 140				01/30/14 05:48	01/31/14 17:48	1
o-Terphenyl	44		40 - 140				01/30/14 05:48	01/31/14 17:48	1

Method: 6010 - Metals (ICF	P) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:33	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:33	1
Barium	72.0		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:33	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:33	1
Cadmium	2.94		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:33	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:33	1
Nickel	10.3		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:33	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:33	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:50	1
Zinc	481	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:50	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:33	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:33	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:33	1

Method: 7470A - Mercury (CVAA) -	Dissolved							
Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.120	0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:38	1

**Client Sample ID: WCMW-9** Lab Sample ID: 480-53903-14

Date Collected: 01/27/14 15:52 **Matrix: Water** Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75	ug/L			01/31/14 03:44	5
1,1,1-Trichloroethane	<4.10	5.00	4.10	ug/L			01/31/14 03:44	5
1,1,2,2-Tetrachloroethane	<1.05	2.50	1.05	ug/L			01/31/14 03:44	5
1,1,2-Trichloroethane	<1.15	5.00	1.15	ug/L			01/31/14 03:44	5
1,1-Dichloroethane	<1.90	5.00	1.90	ug/L			01/31/14 03:44	5
1,1-Dichloroethene	<1.45	5.00	1.45	ug/L			01/31/14 03:44	5
1,1-Dichloropropene	<3.60	5.00	3.60	ug/L			01/31/14 03:44	5
1,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/31/14 03:44	5
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L			01/31/14 03:44	5

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-14

Matrix: Water

Client Sample ID: WCMW-9

Date Collected: 01/27/14 15:52 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/31/14 03:44	
1,2,4-Trimethylbenzene	<3.75	5.00	3.75	ug/L			01/31/14 03:44	
1,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L			01/31/14 03:44	
1,2-Dichlorobenzene	<3.95	5.00	3.95	ug/L			01/31/14 03:44	
1,2-Dichloroethane	<1.05	5.00	1.05	ug/L			01/31/14 03:44	
1,2-Dichloropropane	<3.60	5.00	3.60	ug/L			01/31/14 03:44	
1,3,5-Trimethylbenzene	<3.85	5.00	3.85	ug/L			01/31/14 03:44	
1,3-Dichlorobenzene	<3.90	5.00	3.90	ug/L			01/31/14 03:44	
1,3-Dichloropropane	<3.75	5.00		ug/L			01/31/14 03:44	
,4-Dichlorobenzene	<4.20	5.00		ug/L			01/31/14 03:44	
I,4-Dioxane	<46.6	250		ug/L			01/31/14 03:44	
2,2-Dichloropropane	<2.00	5.00		ug/L			01/31/14 03:44	
2-Butanone (MEK)	<6.60	50.0		ug/L			01/31/14 03:44	
2-Chlorotoluene	<4.30	5.00		ug/L			01/31/14 03:44	
2-Hexanone	<6.20	50.0		ug/L			01/31/14 03:44	
I-Chlorotoluene	<4.20	5.00		ug/L			01/31/14 03:44	
-Isopropyltoluene	<1.55	5.00		ug/L			01/31/14 03:44	
-Methyl-2-pentanone (MIBK)	<10.5	50.0		ug/L			01/31/14 03:44	
Acetone	<15.0	250		ug/L			01/31/14 03:44	
denzene	<2.05	5.00		ug/L			01/31/14 03:44	
romobenzene	<4.00	5.00		ug/L			01/31/14 03:44	
romoform	<1.30	5.00		ug/L			01/31/14 03:44	
romomethane	<3.45	10.0		ug/L			01/31/14 03:44	
Carbon disulfide	<0.950	50.0	0.950				01/31/14 03:44	
Carbon tetrachloride	<1.35	5.00		ug/L			01/31/14 03:44	
Chlorobenzene	<3.75	5.00		ug/L			01/31/14 03:44	
Chlorobromomethane	<4.35	5.00		ug/L			01/31/14 03:44	
Chlorodibromomethane	<1.60	2.50		ug/L			01/31/14 03:44	
Chloroethane	<1.60	10.0		ug/L			01/31/14 03:44	
Chloroform	<1.70	5.00		ug/L			01/31/14 03:44	
Chloromethane	<1.75	10.0		ug/L			01/31/14 03:44	
is-1,2-Dichloroethene	<4.05	5.00		ug/L			01/31/14 03:44	
is-1,3-Dichloropropene	<1.80	2.00		_			01/31/14 03:44	
Dichlorobromomethane	<1.95	2.50		ug/L ug/L			01/31/14 03:44	
vichlorodifluoromethane	<3.40	5.00		ug/L			01/31/14 03:44	
thyl ether	<3.60	5.00		ug/L			01/31/14 03:44	
thylbenzene	<3.70	5.00		ug/L			01/31/14 03:44	
thylene Dibromide	<3.65	5.00		ug/L			01/31/14 03:44	
lexachlorobutadiene	<1.40	2.00		ug/L			01/31/14 03:44	
copropyl ether	<2.95	50.0		ug/L			01/31/14 03:44	
sopropylbenzene	<3.95	5.00		ug/L			01/31/14 03:44	
lethyl tert-butyl ether	<0.800	5.00	0.800				01/31/14 03:44	
lethylene Chloride	<2.20	5.00		ug/L			01/31/14 03:44	
n-Xylene & p-Xylene	<3.30	10.0		ug/L			01/31/14 03:44	
aphthalene	<2.15	25.0		ug/L			01/31/14 03:44	
-Butylbenzene	<3.20	5.00		ug/L			01/31/14 03:44	
l-Propylbenzene	<3.45	5.00	3.45	ug/L			01/31/14 03:44	
-Xylene	<3.80	5.00	3.80	ug/L			01/31/14 03:44	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-14

Matrix: Water

Client Sample ID: WCMW-9

Date Collected: 01/27/14 15:52 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<3.65		5.00	3.65	ug/L			01/31/14 03:44	5
Tert-amyl methyl ether	<1.35		25.0	1.35	ug/L			01/31/14 03:44	5
Tert-butyl ethyl ether	<1.47		25.0	1.47	ug/L			01/31/14 03:44	5
tert-Butylbenzene	<4.05		5.00	4.05	ug/L			01/31/14 03:44	5
Tetrachloroethene	9.61		5.00	1.80	ug/L			01/31/14 03:44	5
Tetrahydrofuran	<6.25	*	50.0	6.25	ug/L			01/31/14 03:44	5
Toluene	<2.55		5.00	2.55	ug/L			01/31/14 03:44	5
trans-1,2-Dichloroethene	<4.50		5.00	4.50	ug/L			01/31/14 03:44	5
trans-1,3-Dichloropropene	<1.85		2.00	1.85	ug/L			01/31/14 03:44	5
Trichloroethene	3.70	J	5.00	2.30	ug/L			01/31/14 03:44	5
Trichlorofluoromethane	<4.40		5.00	4.40	ug/L			01/31/14 03:44	5
Vinyl chloride	<4.50		5.00	4.50	ug/L			01/31/14 03:44	5
Dibromomethane	<2.05		5.00	2.05	ug/L			01/31/14 03:44	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130			_		01/31/14 03:44	5
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/31/14 03:44	5
4-Bromofluorobenzene (Surr)	97		70 - 130					01/31/14 03:44	5

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (adjusted)	1.83 J	5.00	1.50	ug/L			01/29/14 13:05	1
C9-C12 Aliphatics (adjusted)	<5.00	5.00	1.50	ug/L			01/29/14 13:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	3.33	J	5.00	1.50	ug/L			01/29/14 20:30	1
C9-C10 Aromatics	1.74	J	5.00	0.500	ug/L			01/29/14 20:30	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 20:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	98		70 - 130			_		01/29/14 20:30	1
2,5-Dibromotoluene (pid)	101		70 - 130					01/29/14 20:30	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Acenaphthene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Acenaphthylene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Anthracene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Benzo[a]anthracene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Benzo[a]pyrene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Benzo[b]fluoranthene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Benzo[g,h,i]perylene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Benzo[k]fluoranthene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Chrysene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Dibenz(a,h)anthracene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Fluoranthene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Fluorene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Indeno[1,2,3-cd]pyrene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Naphthalene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-14

Matrix: Water

**Client Sample ID: WCMW-9** Date Collected: 01/27/14 15:52

Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
Pyrene	<9.50		9.50	1.90	ug/L		01/30/14 05:48	01/31/14 18:47	1
C11-C22 Aromatics (unadjusted)	15.2	JB	47.5	9.50	ug/L		01/30/14 05:48	01/31/14 18:47	1
C19-C36 Aliphatics	22.0	JB	47.5	9.50	ug/L		01/30/14 05:48	01/31/14 18:47	1
C9-C18 Aliphatics	10.9	J	47.5	9.50	ug/L		01/30/14 05:48	01/31/14 18:47	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	31	X	40 - 140				01/30/14 05:48	01/31/14 18:47	1
2-Bromonaphthalene	77		40 - 140				01/30/14 05:48	01/31/14 18:47	1
2-Fluorobiphenyl	91		40 - 140				01/30/14 05:48	01/31/14 18:47	1
o-Terphenyl	50		40 - 140				01/30/14 05:48	01/31/14 18:47	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:35	1
Arsenic	8.15	J	10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:35	1
Barium	176		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:35	1
Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:35	1
Cadmium	1.70		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:35	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:35	1
Nickel	24.2		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:35	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:35	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:53	1
Zinc	666	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:53	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:35	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:35	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:35	1
Method: 7470A - Mercury	(CVAA) - Dissolved								
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: TB-01272014 Lab Sample ID: 480-53903-15 Date Collected: 01/27/14 12:00

0.200

0.120 ug/L

<0.120

Date Received: 01/29/14 01:30

Mercury

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.350	1.00	0.350	ug/L			01/31/14 04:08	1
1,1,1-Trichloroethane	<0.820	1.00	0.820	ug/L			01/31/14 04:08	1
1,1,2,2-Tetrachloroethane	<0.210	0.500	0.210	ug/L			01/31/14 04:08	1
1,1,2-Trichloroethane	<0.230	1.00	0.230	ug/L			01/31/14 04:08	1
1,1-Dichloroethane	<0.380	1.00	0.380	ug/L			01/31/14 04:08	1
1,1-Dichloroethene	<0.290	1.00	0.290	ug/L			01/31/14 04:08	1
1,1-Dichloropropene	<0.720	1.00	0.720	ug/L			01/31/14 04:08	1
1,2,3-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 04:08	1
1,2,3-Trichloropropane	<0.890	1.00	0.890	ug/L			01/31/14 04:08	1
1,2,4-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 04:08	1

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Matrix: Water

01/29/14 07:45 01/29/14 12:40

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-15

Matrix: Water

Client Sample ID: TB-01272014

Date Collected: 01/27/14 12:00 Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
1,2,4-Trimethylbenzene	<0.750	1.00	0.750	ug/L			01/31/14 04:08	
1,2-Dibromo-3-Chloropropane	<0.390	5.00	0.390	ug/L			01/31/14 04:08	
1,2-Dichlorobenzene	<0.790	1.00	0.790	ug/L			01/31/14 04:08	
1,2-Dichloroethane	<0.210	1.00	0.210	ug/L			01/31/14 04:08	
1,2-Dichloropropane	<0.720	1.00	0.720	ug/L			01/31/14 04:08	
1,3,5-Trimethylbenzene	<0.770	1.00	0.770	ug/L			01/31/14 04:08	
1,3-Dichlorobenzene	<0.780	1.00	0.780	ug/L			01/31/14 04:08	
1,3-Dichloropropane	<0.750	1.00	0.750	ug/L			01/31/14 04:08	
1,4-Dichlorobenzene	<0.840	1.00	0.840	ug/L			01/31/14 04:08	
1,4-Dioxane	<9.32	50.0	9.32	ug/L			01/31/14 04:08	
2,2-Dichloropropane	<0.400	1.00	0.400	ug/L			01/31/14 04:08	
2-Butanone (MEK)	<1.32	10.0	1.32	ug/L			01/31/14 04:08	
2-Chlorotoluene	<0.860	1.00	0.860	ug/L			01/31/14 04:08	
2-Hexanone	<1.24	10.0	1.24	ug/L			01/31/14 04:08	
4-Chlorotoluene	<0.840	1.00	0.840	ug/L			01/31/14 04:08	
4-Isopropyltoluene	<0.310	1.00	0.310	ug/L			01/31/14 04:08	
4-Methyl-2-pentanone (MIBK)	<2.10	10.0	2.10	ug/L			01/31/14 04:08	
Acetone	4.68 J	50.0	3.00	ug/L			01/31/14 04:08	
Benzene	<0.410	1.00	0.410	ug/L			01/31/14 04:08	
Bromobenzene	<0.800	1.00	0.800	ug/L			01/31/14 04:08	
Bromoform	<0.260	1.00	0.260	ug/L			01/31/14 04:08	
Bromomethane	<0.690	2.00	0.690	ug/L			01/31/14 04:08	
Carbon disulfide	<0.190	10.0	0.190	ug/L			01/31/14 04:08	
Carbon tetrachloride	<0.270	1.00	0.270	ug/L			01/31/14 04:08	
Chlorobenzene	<0.750	1.00	0.750	ug/L			01/31/14 04:08	
Chlorobromomethane	<0.870	1.00	0.870	ug/L			01/31/14 04:08	
Chlorodibromomethane	<0.320	0.500	0.320	ug/L			01/31/14 04:08	
Chloroethane	<0.320	2.00	0.320	ug/L			01/31/14 04:08	
Chloroform	<0.340	1.00	0.340	_			01/31/14 04:08	
Chloromethane	<0.350	2.00	0.350	ug/L			01/31/14 04:08	
cis-1,2-Dichloroethene	<0.810	1.00	0.810	ug/L			01/31/14 04:08	
cis-1,3-Dichloropropene	<0.360	0.400	0.360	ug/L			01/31/14 04:08	
Dichlorobromomethane	<0.390	0.500	0.390	ug/L			01/31/14 04:08	
Dichlorodifluoromethane	<0.680	1.00	0.680	_			01/31/14 04:08	
Ethyl ether	<0.720	1.00	0.720	ug/L			01/31/14 04:08	
Ethylbenzene	<0.740	1.00	0.740	ug/L			01/31/14 04:08	
Ethylene Dibromide	<0.730	1.00	0.730				01/31/14 04:08	
Hexachlorobutadiene	<0.280	0.400	0.280				01/31/14 04:08	
Isopropyl ether	<0.590	10.0	0.590				01/31/14 04:08	
Isopropylbenzene	<0.790	1.00	0.790				01/31/14 04:08	
Methyl tert-butyl ether	<0.160	1.00	0.160				01/31/14 04:08	
Methylene Chloride	<0.440	1.00	0.440	<del>.</del>			01/31/14 04:08	
m-Xylene & p-Xylene	<0.660	2.00	0.660	-			01/31/14 04:08	
Naphthalene	<0.430	5.00	0.430	-			01/31/14 04:08	
n-Butylbenzene	<0.640	1.00	0.640				01/31/14 04:08	
N-Propylbenzene	<0.690	1.00	0.690	-			01/31/14 04:08	
o-Xylene	<0.760	1.00	0.760	•			01/31/14 04:08	
sec-Butylbenzene	<0.750	1.00	0.750				01/31/14 04:08	
Styrene	<0.730	1.00	0.730	_			01/31/14 04:08	

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Client Sample ID: TB-01272014 Lab Sample ID: 480-53903-15

Date Collected: 01/27/14 12:00 Matrix: Water
Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-amyl methyl ether	<0.270		5.00	0.270	ug/L			01/31/14 04:08	1
Tert-butyl ethyl ether	<0.294		5.00	0.294	ug/L			01/31/14 04:08	1
tert-Butylbenzene	<0.810		1.00	0.810	ug/L			01/31/14 04:08	1
Tetrachloroethene	<0.360		1.00	0.360	ug/L			01/31/14 04:08	1
Tetrahydrofuran	<1.25	*	10.0	1.25	ug/L			01/31/14 04:08	1
Toluene	<0.510		1.00	0.510	ug/L			01/31/14 04:08	1
trans-1,2-Dichloroethene	<0.900		1.00	0.900	ug/L			01/31/14 04:08	1
trans-1,3-Dichloropropene	<0.370		0.400	0.370	ug/L			01/31/14 04:08	1
Trichloroethene	<0.460		1.00	0.460	ug/L			01/31/14 04:08	1
Trichlorofluoromethane	<0.880		1.00	0.880	ug/L			01/31/14 04:08	1
Vinyl chloride	<0.900		1.00	0.900	ug/L			01/31/14 04:08	1
Dibromomethane	<0.410		1.00	0.410	ug/L			01/31/14 04:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130			=		01/31/14 04:08	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/31/14 04:08	1
4-Bromofluorobenzene (Surr)	98		70 - 130					01/31/14 04:08	1

Client Sample ID: WCMW-10 Lab Sample ID: 480-53903-16

Date Collected: 01/28/14 09:36 Matrix: Water

Date Received: 01/29/14 01:30

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.75	5.00	1.75	ug/L			01/31/14 04:32	5
1,1,1-Trichloroethane	<4.10	5.00	4.10	ug/L			01/31/14 04:32	5
1,1,2,2-Tetrachloroethane	<1.05	2.50	1.05	ug/L			01/31/14 04:32	5
1,1,2-Trichloroethane	<1.15	5.00	1.15	ug/L			01/31/14 04:32	5
1,1-Dichloroethane	<1.90	5.00	1.90	ug/L			01/31/14 04:32	5
1,1-Dichloroethene	<1.45	5.00	1.45	ug/L			01/31/14 04:32	5
1,1-Dichloropropene	<3.60	5.00	3.60	ug/L			01/31/14 04:32	5
1,2,3-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/31/14 04:32	5
1,2,3-Trichloropropane	<4.45	5.00	4.45	ug/L			01/31/14 04:32	5
1,2,4-Trichlorobenzene	<2.05	5.00	2.05	ug/L			01/31/14 04:32	5
1,2,4-Trimethylbenzene	<3.75	5.00	3.75	ug/L			01/31/14 04:32	5
1,2-Dibromo-3-Chloropropane	<1.95	25.0	1.95	ug/L			01/31/14 04:32	5
1,2-Dichlorobenzene	<3.95	5.00	3.95	ug/L			01/31/14 04:32	5
1,2-Dichloroethane	<1.05	5.00	1.05	ug/L			01/31/14 04:32	5
1,2-Dichloropropane	<3.60	5.00	3.60	ug/L			01/31/14 04:32	5
1,3,5-Trimethylbenzene	<3.85	5.00	3.85	ug/L			01/31/14 04:32	5
1,3-Dichlorobenzene	<3.90	5.00	3.90	ug/L			01/31/14 04:32	5
1,3-Dichloropropane	<3.75	5.00	3.75	ug/L			01/31/14 04:32	5
1,4-Dichlorobenzene	<4.20	5.00	4.20	ug/L			01/31/14 04:32	5
1,4-Dioxane	<46.6	250	46.6	ug/L			01/31/14 04:32	5
2,2-Dichloropropane	<2.00	5.00	2.00	ug/L			01/31/14 04:32	5
2-Butanone (MEK)	<6.60	50.0	6.60	ug/L			01/31/14 04:32	5
2-Chlorotoluene	<4.30	5.00	4.30	ug/L			01/31/14 04:32	5
2-Hexanone	<6.20	50.0	6.20	ug/L			01/31/14 04:32	5
4-Chlorotoluene	<4.20	5.00	4.20	ug/L			01/31/14 04:32	5
4-Isopropyltoluene	<1.55	5.00	1.55	ug/L			01/31/14 04:32	5

TestAmerica Buffalo

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-16

Matrix: Water

Client Sample ID: WCMW-10

Date Collected: 01/28/14 09:36 Date Received: 01/29/14 01:30

4-Bromofluorobenzene (Surr)

Method: 8260C - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
4-Methyl-2-pentanone (MIBK)	<10.5		50.0	10.5	ug/L			01/31/14 04:32	
Acetone	<15.0		250	15.0	ug/L			01/31/14 04:32	
Benzene	<2.05		5.00	2.05	ug/L			01/31/14 04:32	
Bromobenzene	<4.00		5.00	4.00				01/31/14 04:32	
Bromoform	<1.30		5.00	1.30				01/31/14 04:32	
Bromomethane	<3.45		10.0		ug/L			01/31/14 04:32	
Carbon disulfide	<0.950		50.0	0.950	-			01/31/14 04:32	
Carbon tetrachloride	<1.35		5.00	1.35				01/31/14 04:32	:
Chlorobenzene	<3.75		5.00	3.75				01/31/14 04:32	
Chlorobromomethane	<4.35		5.00		ug/L			01/31/14 04:32	
Chlorodibromomethane	<1.60		2.50	1.60				01/31/14 04:32	:
Chloroethane	<1.60		10.0	1.60				01/31/14 04:32	
Chloroform	<1.70		5.00	1.70				01/31/14 04:32	
Chloromethane	<1.75		10.0	1.75				01/31/14 04:32	
cis-1,2-Dichloroethene	<4.05		5.00	4.05				01/31/14 04:32	
cis-1,3-Dichloropropene	<1.80		2.00	1.80				01/31/14 04:32	
Dichlorobromomethane	<1.95		2.50		ug/L ug/L			01/31/14 04:32	
Dichlorodifluoromethane	<3.40		5.00	3.40				01/31/14 04:32	
	<3.40 <3.60		5.00						
Ethyl ether				3.60				01/31/14 04:32	
Ethylbenzene	<3.70		5.00		ug/L			01/31/14 04:32	
Ethylene Dibromide	<3.65		5.00		ug/L			01/31/14 04:32	
Hexachlorobutadiene	<1.40		2.00	1.40				01/31/14 04:32	
sopropyl ether	<2.95		50.0	2.95				01/31/14 04:32	;
sopropylbenzene	<3.95		5.00	3.95				01/31/14 04:32	;
Methyl tert-butyl ether	<0.800		5.00	0.800				01/31/14 04:32	
Methylene Chloride	<2.20		5.00	2.20				01/31/14 04:32	
m-Xylene & p-Xylene	<3.30		10.0		ug/L			01/31/14 04:32	
Naphthalene	<2.15		25.0		ug/L			01/31/14 04:32	
n-Butylbenzene	<3.20		5.00		ug/L			01/31/14 04:32	
N-Propylbenzene	<3.45		5.00		ug/L			01/31/14 04:32	:
o-Xylene	<3.80		5.00		ug/L			01/31/14 04:32	
sec-Butylbenzene	<3.75		5.00	3.75				01/31/14 04:32	:
Styrene	<3.65		5.00		ug/L			01/31/14 04:32	:
Tert-amyl methyl ether	<1.35		25.0	1.35	ug/L			01/31/14 04:32	
Tert-butyl ethyl ether	<1.47		25.0	1.47	ug/L			01/31/14 04:32	
ert-Butylbenzene	<4.05		5.00		ug/L			01/31/14 04:32	
Tetrachloroethene	<1.80		5.00	1.80				01/31/14 04:32	
Tetrahydrofuran	<6.25	*	50.0	6.25	ug/L			01/31/14 04:32	
Toluene	<2.55		5.00	2.55	ug/L			01/31/14 04:32	:
rans-1,2-Dichloroethene	<4.50		5.00	4.50	ug/L			01/31/14 04:32	:
rans-1,3-Dichloropropene	<1.85		2.00	1.85	ug/L			01/31/14 04:32	
Trichloroethene	<2.30		5.00	2.30	ug/L			01/31/14 04:32	
Trichlorofluoromethane	<4.40		5.00	4.40	ug/L			01/31/14 04:32	:
Vinyl chloride	<4.50		5.00	4.50	ug/L			01/31/14 04:32	
Dibromomethane	<2.05		5.00	2.05	ug/L			01/31/14 04:32	:
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Toluene-d8 (Surr)	100		70 - 130			_		01/31/14 04:32	
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					01/31/14 04:32	

TestAmerica Buffalo

01/31/14 04:32

70 - 130

98

3

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9

1 4

12

14

MDL Unit

D

Prepared

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Date Collected: 01/28/14 09:36

Date Received: 01/29/14 01:30

Analyte

Analyte

Surrogate

1-Chlorooctadecane

2-Bromonaphthalene

2-Fluorobiphenyl

o-Terphenyl

C11-C22 Aromatics (Adjusted)

**Client Sample ID: WCMW-10** 

Method: MA VPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Result Qualifier

Result Qualifier

37 X

79

90

56

Qualifier

<50.0

%Recovery

TestAmerica Job ID: 480-53903-1

Analyzed

Lab Sample ID: 480-53903-16

Matrix: Water

Dil Fac

3

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11

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16

<b>,</b>						_		·	
C5-C8 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
Method: MAVPH - Massachusetts	- Volatile Pet	roleum Hvd	rocarbons (GC	)					
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C5-C8 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 21:09	1
C9-C10 Aromatics	<5.00		5.00	0.500	ug/L			01/29/14 21:09	1
C9-C12 Aliphatics (unadjusted)	<5.00		5.00	1.50	ug/L			01/29/14 21:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,5-Dibromotoluene (fid)	98		70 - 130					01/29/14 21:09	
2,5-Dibromotoluene (pid)	101		70 - 130					01/29/14 21:09	1
Method: MA-EPH - Massachusetts	Extractable	. Potroloum	Hydrocarbone	(CC)					
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Acenaphthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Acenaphthylene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Anthracene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Benzo[a]anthracene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Benzo[a]pyrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Benzo[b]fluoranthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Benzo[g,h,i]perylene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Benzo[k]fluoranthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Chrysene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Dibenz(a,h)anthracene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Fluoranthene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Fluorene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Indeno[1,2,3-cd]pyrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Naphthalene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
Phenanthrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	1
							04/00/44 05 40	04/04/44 40 47	1
Pyrene	<9.48		9.48	1.90	ug/L		01/30/14 05:48	01/31/14 19:17	
•	<9.48 <b>10.8</b>	JB	9.48 47.4		ug/L ug/L		01/30/14 05:48	01/31/14 19:17 01/31/14 19:17	1
Pyrene C11-C22 Aromatics (unadjusted) C19-C36 Aliphatics		JB		9.48					•

Method: 6010 - Metals (ICP) - Dissolved								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70	5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:38	1
Arsenic	<5.55	10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:38	1
Barium	153	10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:38	1
Beryllium	<0.300	1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:38	1

RL

50.0

Limits

40 - 140

40 - 140

40 - 140

40 - 140

RL Unit

50.0 ug/L

D

Prepared

Prepared

01/30/14 05:48

01/30/14 05:48

01/30/14 05:48

01/30/14 05:48

Analyzed

02/03/14 10:58

Analyzed

01/31/14 19:17

01/31/14 19:17

01/31/14 19:17

01/31/14 19:17

Dil Fac

Dil Fac

1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Mercury

TestAmerica Job ID: 480-53903-1

01/29/14 07:45 01/29/14 12:45

Client Sample ID: WCMW-10 Lab Sample ID: 480-53903-16

Date Collected: 01/28/14 09:36

Date Received: 01/29/14 01:30

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:38	1
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:38	1
Nickel	6.17	J	10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:38	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:38	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:56	1
Zinc	16.5	JB	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:56	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:38	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:38	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:38	1
- -									
Method: 7470A - Mercur	ry (CVAA) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: WCMW-8 Lab Sample ID: 480-53903-17

0.200

0.120 ug/L

<0.120

Date Collected: 01/28/14 11:02

Date Received: 01/29/14 01:30

Matrix: Water

Method: 8260C - Volatile Organi Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.350	1.00	0.350	ug/L			01/31/14 15:13	1
1,1,1-Trichloroethane	<0.820	1.00	0.820	ug/L			01/31/14 15:13	1
1,1,2,2-Tetrachloroethane	<0.210	0.500	0.210	ug/L			01/31/14 15:13	1
1,1,2-Trichloroethane	<0.230	1.00	0.230	ug/L			01/31/14 15:13	1
1,1-Dichloroethane	<0.380	1.00	0.380	ug/L			01/31/14 15:13	1
1,1-Dichloroethene	<0.290	1.00	0.290	ug/L			01/31/14 15:13	1
1,1-Dichloropropene	<0.720	1.00	0.720	ug/L			01/31/14 15:13	1
1,2,3-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 15:13	1
1,2,3-Trichloropropane	<0.890	1.00	0.890	ug/L			01/31/14 15:13	1
1,2,4-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 15:13	1
1,2,4-Trimethylbenzene	<0.750	1.00	0.750	ug/L			01/31/14 15:13	1
1,2-Dibromo-3-Chloropropane	<0.390	5.00	0.390	ug/L			01/31/14 15:13	1
1,2-Dichlorobenzene	<0.790	1.00	0.790	ug/L			01/31/14 15:13	1
1,2-Dichloroethane	<0.210	1.00	0.210	ug/L			01/31/14 15:13	1
1,2-Dichloropropane	<0.720	1.00	0.720	ug/L			01/31/14 15:13	1
1,3,5-Trimethylbenzene	<0.770	1.00	0.770	ug/L			01/31/14 15:13	1
1,3-Dichlorobenzene	<0.780	1.00	0.780	ug/L			01/31/14 15:13	1
1,3-Dichloropropane	<0.750	1.00	0.750	ug/L			01/31/14 15:13	1
1,4-Dichlorobenzene	<0.840	1.00	0.840	ug/L			01/31/14 15:13	1
1,4-Dioxane	<9.32	50.0	9.32	ug/L			01/31/14 15:13	1
2,2-Dichloropropane	<0.400	1.00	0.400	ug/L			01/31/14 15:13	1
2-Butanone (MEK)	<1.32 *	10.0	1.32	ug/L			01/31/14 15:13	1
2-Chlorotoluene	<0.860	1.00	0.860	ug/L			01/31/14 15:13	1
2-Hexanone	<1.24	10.0	1.24	ug/L			01/31/14 15:13	1
4-Chlorotoluene	<0.840	1.00	0.840	ug/L			01/31/14 15:13	1
4-Isopropyltoluene	<0.310	1.00	0.310	ug/L			01/31/14 15:13	1
4-Methyl-2-pentanone (MIBK)	<2.10	10.0	2.10	ug/L			01/31/14 15:13	1
Acetone	<3.00	50.0	3.00	ug/L			01/31/14 15:13	1
Benzene	<0.410	1.00	0.410	ug/L			01/31/14 15:13	1
Bromobenzene	<0.800	1.00	0.800	ug/L			01/31/14 15:13	1

TestAmerica Buffalo

2/7/2014

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14

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-17

Matrix: Water

**Client Sample ID: WCMW-8** 

Date Collected: 01/28/14 11:02 Date Received: 01/29/14 01:30

C5-C8 Aliphatics (adjusted)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<0.260		1.00	0.260	ug/L			01/31/14 15:13	1
Bromomethane	<0.690		2.00	0.690	ug/L			01/31/14 15:13	1
Carbon disulfide	<0.190		10.0	0.190	ug/L			01/31/14 15:13	1
Carbon tetrachloride	<0.270		1.00	0.270	ug/L			01/31/14 15:13	1
Chlorobenzene	<0.750		1.00	0.750	ug/L			01/31/14 15:13	1
Chlorobromomethane	<0.870		1.00	0.870	ug/L			01/31/14 15:13	1
Chlorodibromomethane	<0.320		0.500	0.320	ug/L			01/31/14 15:13	1
Chloroethane	<0.320		2.00	0.320	ug/L			01/31/14 15:13	1
Chloroform	<0.340		1.00	0.340	ug/L			01/31/14 15:13	1
Chloromethane	<0.350		2.00	0.350	ug/L			01/31/14 15:13	1
cis-1,2-Dichloroethene	2.96		1.00	0.810	ug/L			01/31/14 15:13	1
cis-1,3-Dichloropropene	<0.360		0.400	0.360	ug/L			01/31/14 15:13	1
Dichlorobromomethane	<0.390		0.500	0.390	ug/L			01/31/14 15:13	1
Dichlorodifluoromethane	<0.680		1.00	0.680	ug/L			01/31/14 15:13	1
Ethyl ether	<0.720		1.00	0.720	ug/L			01/31/14 15:13	1
Ethylbenzene	<0.740		1.00	0.740	ug/L			01/31/14 15:13	1
Ethylene Dibromide	<0.730		1.00	0.730	ug/L			01/31/14 15:13	1
Hexachlorobutadiene	<0.280		0.400	0.280	ug/L			01/31/14 15:13	1
Isopropyl ether	<0.590		10.0	0.590	ug/L			01/31/14 15:13	1
Isopropylbenzene	<0.790		1.00	0.790	ug/L			01/31/14 15:13	1
Methyl tert-butyl ether	<0.160		1.00	0.160	ug/L			01/31/14 15:13	1
Methylene Chloride	<0.440		1.00	0.440	ug/L			01/31/14 15:13	1
m-Xylene & p-Xylene	<0.660		2.00	0.660	ug/L			01/31/14 15:13	1
Naphthalene	<0.430		5.00	0.430	ug/L			01/31/14 15:13	1
n-Butylbenzene	<0.640		1.00	0.640	ug/L			01/31/14 15:13	1
N-Propylbenzene	<0.690		1.00	0.690	ug/L			01/31/14 15:13	1
o-Xylene	<0.760		1.00	0.760	ug/L			01/31/14 15:13	1
sec-Butylbenzene	<0.750		1.00	0.750	ug/L			01/31/14 15:13	1
Styrene	<0.730		1.00	0.730	ug/L			01/31/14 15:13	1
Tert-amyl methyl ether	<0.270		5.00	0.270	ug/L			01/31/14 15:13	1
Tert-butyl ethyl ether	<0.294		5.00	0.294	ug/L			01/31/14 15:13	1
tert-Butylbenzene	<0.810		1.00	0.810	ug/L			01/31/14 15:13	1
Tetrachloroethene	1.97		1.00	0.360	ug/L			01/31/14 15:13	1
Tetrahydrofuran	<1.25		10.0	1.25	ug/L			01/31/14 15:13	1
Toluene	<0.510		1.00	0.510	ug/L			01/31/14 15:13	1
trans-1,2-Dichloroethene	<0.900		1.00	0.900	ug/L			01/31/14 15:13	1
trans-1,3-Dichloropropene	<0.370		0.400	0.370	ug/L			01/31/14 15:13	1
Trichloroethene	2.26		1.00	0.460	ug/L			01/31/14 15:13	1
Trichlorofluoromethane	<0.880		1.00	0.880	ug/L			01/31/14 15:13	1
Vinyl chloride	<0.900		1.00	0.900	ug/L			01/31/14 15:13	1
Dibromomethane	<0.410		1.00	0.410	ug/L			01/31/14 15:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130			-		01/31/14 15:13	1

1,2-Dichloroethane-d4 (Surr)	98	70 - 130				01/31/14 15:13	1
4-Bromofluorobenzene (Surr)	100	70 - 130				01/31/14 15:13	1
Method: MA VPH - Massachusetts	- Volatile Petroleum Hyd	drocarbons (GC)					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac

5.00

1.50 ug/L

<5.00

TestAmerica Buffalo

01/29/14 13:05

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

**Client Sample ID: WCMW-8** Date Collected: 01/28/14 11:02

Date Received: 01/29/14 01:30

Lab Sample ID: 480-53903-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C12 Aliphatics (adjusted)	<5.00		5.00	1.50	ug/L			01/29/14 13:05	1
Г									
Method: MAVPH - Massachusetts	- Volatile Pet	roleum Hydro	carbons (GC	)					
Method: MAVPH - Massachusetts Analyte		roleum Hydro Qualifier	ocarbons (GC RL	) MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	•	MDL	Unit ug/L	D	Prepared	Analyzed 01/29/14 21:47	Dil Fac
Analyte	Result	Qualifier	RL	MDL	ug/L	D	Prepared		Dil Fac

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 2,5-Dibromotoluene (fid) 99 70 - 130 01/29/14 21:47 2,5-Dibromotoluene (pid) 101 01/29/14 21:47 70 - 130

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Acenaphthene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Acenaphthylene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Anthracene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Benzo[a]anthracene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Benzo[a]pyrene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Benzo[b]fluoranthene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Benzo[g,h,i]perylene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Benzo[k]fluoranthene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Chrysene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Dibenz(a,h)anthracene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Fluoranthene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Fluorene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Indeno[1,2,3-cd]pyrene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Naphthalene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Phenanthrene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
Pyrene	<9.59		9.59	1.92	ug/L		01/30/14 05:48	01/31/14 19:46	1
C11-C22 Aromatics (unadjusted)	15.4	JB	48.0	9.59	ug/L		01/30/14 05:48	01/31/14 19:46	1
C19-C36 Aliphatics	16.4	JB	48.0	9.59	ug/L		01/30/14 05:48	01/31/14 19:46	1
C9-C18 Aliphatics	17.3	J	48.0	9.59	ug/L		01/30/14 05:48	01/31/14 19:46	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
C11-C22 Aromatics (Adjusted)	<50.0		50.0	50.0	ug/L			02/03/14 10:58	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctadecane	84	40 - 140	01/30/14 05:48	01/31/14 19:46	1
2-Bromonaphthalene	51	40 - 140	01/30/14 05:48	01/31/14 19:46	1
2-Fluorobiphenyl	78	40 - 140	01/30/14 05:48	01/31/14 19:46	1
o-Terphenyl	73	40 - 140	01/30/14 05:48	01/31/14 19:46	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70	5.00	1.70	ug/L		01/29/14 10:45	01/30/14 20:50	1
Arsenic	<5.55	10.0	5.55	ug/L		01/29/14 10:45	01/30/14 20:50	1
Barium	179	10.0	0.700	ug/L		01/29/14 10:45	01/30/14 20:50	1
Beryllium	<0.300	1.00	0.300	ug/L		01/29/14 10:45	01/30/14 20:50	1
Cadmium	12.2	1.00	0.500	ug/L		01/29/14 10:45	01/30/14 20:50	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-17

Matrix: Water

**Client Sample ID: WCMW-8** 

Date Collected: 01/28/14 11:02 Date Received: 01/29/14 01:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 20:50	1
Nickel	72.9		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 20:50	1
Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 20:50	1
Vanadium	<1.50		10.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:59	1
Zinc	978	В	50.0	1.50	ug/L		01/29/14 10:45	01/31/14 17:59	1
Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 20:50	1
Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 20:50	1
Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 20:50	1

Method: 7470A - Mercury (CVAA)	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.120		0.200	0.120	ug/L		01/29/14 07:45	01/29/14 12:47	1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

				•	te Recovery (Acceptance Limits)
		TOL	12DCE	BFB	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	
480-53903-1	WCMW-11	97	99	97	
480-53903-2	MW-1R	101	101	101	
480-53903-3	WCMW-7	100	100	98	
480-53903-5	MW-4R	99	99	99	
480-53903-6	MW-2R	100	97	100	
480-53903-7	WCMW-6	99	102	98	
480-53903-8	WCMW-5	100	101	101	
480-53903-9	WCMW-2	97	102	98	
480-53903-10	WCMW-4	99	101	98	
480-53903-11	WCMW-1	99	101	99	
480-53903-12	WCMW-3	99	101	99	
480-53903-13	MW-3R	100	101	102	
480-53903-14	WCMW-9	99	101	97	
480-53903-15	TB-01272014	101	101	98	
480-53903-16	WCMW-10	100	101	98	
480-53903-17	WCMW-8	100	98	100	
LCS 480-163849/5	Lab Control Sample	99	101	101	
LCS 480-163954/4	Lab Control Sample	99	100	103	
LCS 480-164048/4	Lab Control Sample	98	95	102	
LCSD 480-163849/6	Lab Control Sample Dup	99	102	103	
LCSD 480-163954/5	Lab Control Sample Dup	100	99	104	
LCSD 480-164048/5	Lab Control Sample Dup	101	94	102	
MB 480-163849/8	Method Blank	99	100	98	
MB 480-163954/7	Method Blank	98	100	96	
MB 480-164048/7	Method Blank	98	95	99	

#### **Surrogate Legend**

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

#### Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Matrix: Water Prep Type: Total/NA

_			
		25DBT2	25DBT1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
480-53903-1	WCMW-11	88	91
480-53903-2	MW-1R	92	95
480-53903-3	WCMW-7	90	92
480-53903-5	MW-4R	101	100
480-53903-6	MW-2R	104	103
480-53903-7	WCMW-6	97	98
480-53903-8	WCMW-5	99	99
480-53903-9	WCMW-2	96	97
480-53903-10	WCMW-4	96	98
480-53903-11	WCMW-1	96	98
480-53903-12	WCMW-3	96	98
480-53903-13	MW-3R	93	97

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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#### Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC) (Continued)

Matrix: Water Prep Type: Total/NA

		25DBT2	25DBT1	Percent Surrogate Recovery (Acceptance Limits)
	<b>.</b>			
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
480-53903-14	WCMW-9	98	101	
480-53903-16	WCMW-10	98	101	
480-53903-17	WCMW-8	99	101	
LCS 480-163628/4	Lab Control Sample	88	92	
LCSD 480-163628/5	Lab Control Sample Dup	88	91	
MB 480-163628/3	Method Blank	87	91	
Surrogate Legend				

#### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Matrix: Water Prep Type: Total/NA

				Percent Su	rrogate Recov	ery (Acceptance Lir
		1COD2	2BN1	FBP1	OTPH1	
_ab Sample ID C	lient Sample ID	(40-140)	(40-140)	(40-140)	(40-140)	
480-53903-1 V	/CMW-11	26 X	85	93	50	
80-53903-2 N	IW-1R	31 X	46	76	56	
180-53903-3 V	/CMW-7	30 X	74	83	55	
180-53903-4 V	/CMW-907	27 X	57	85	50	
480-53903-5 N	IW-4R	29 X	28 X	23 X	46	
80-53903-6 N	IW-2R	32 X	21 X	48	46	
80-53903-7 V	/CMW-6	34 X	50	77	49	
80-53903-8 V	/CMW-5	37 X	66	79	55	
180-53903-9 V	/CMW-2	34 X	79	88	50	
80-53903-10 V	VCMW-4	43	77	91	68	
80-53903-11 V	/CMW-1	51	71	81	68	
80-53903-12 V	/CMW-3	35 X	61	83	59	
80-53903-13 M	IW-3R	8 X	77	81	44	
80-53903-14 V	/CMW-9	31 X	77	91	50	
80-53903-16 V	/CMW-10	37 X	79	90	56	
180-53903-17 V	/CMW-8	84	51	78	73	
.CS 480-163794/2-B	ab Control Sample	80	74	82	73	
.CSD 480-163794/3-B	ab Control Sample Dup	89	72	84	78	
IB 480-163794/1-B N	lethod Blank	70	81	85	74	

#### Surrogate Legend

1COD = 1-Chlorooctadecane

2BN = 2-Bromonaphthalene

FBP = 2-Fluorobiphenyl

OTPH = o-Terphenyl

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### **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

#### Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-163849/8

**Matrix: Water** 

Ethylene Dibromide

Hexachlorobutadiene

Client Sample ID: Method Blank Prep Type: Total/NA

	5

		MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	<0.350		1.00	0.350	ug/L			01/30/14 14:19	
1,1,1-Trichloroethane	<0.820		1.00	0.820	ug/L			01/30/14 14:19	•
1,1,2,2-Tetrachloroethane	<0.210		0.500	0.210	ug/L			01/30/14 14:19	
1,1,2-Trichloroethane	<0.230		1.00	0.230	ug/L			01/30/14 14:19	•
1,1-Dichloroethane	<0.380		1.00	0.380	ug/L			01/30/14 14:19	•
1,1-Dichloroethene	<0.290		1.00	0.290	ug/L			01/30/14 14:19	
1,1-Dichloropropene	<0.720		1.00	0.720	ug/L			01/30/14 14:19	
1,2,3-Trichlorobenzene	<0.410		1.00	0.410	ug/L			01/30/14 14:19	
1,2,3-Trichloropropane	<0.890		1.00	0.890	ug/L			01/30/14 14:19	
1,2,4-Trichlorobenzene	<0.410		1.00	0.410	ug/L			01/30/14 14:19	
1,2,4-Trimethylbenzene	<0.750		1.00	0.750	ug/L			01/30/14 14:19	
1,2-Dibromo-3-Chloropropane	<0.390		5.00	0.390	ug/L			01/30/14 14:19	•
1,2-Dichlorobenzene	<0.790		1.00	0.790	ug/L			01/30/14 14:19	
1,2-Dichloroethane	<0.210		1.00	0.210	ug/L			01/30/14 14:19	
1,2-Dichloropropane	<0.720		1.00	0.720	ug/L			01/30/14 14:19	
1,3,5-Trimethylbenzene	<0.770		1.00	0.770	ug/L			01/30/14 14:19	
1,3-Dichlorobenzene	<0.780		1.00	0.780	ug/L			01/30/14 14:19	
1,3-Dichloropropane	<0.750		1.00	0.750	ug/L			01/30/14 14:19	
1,4-Dichlorobenzene	<0.840		1.00	0.840	ug/L			01/30/14 14:19	
1,4-Dioxane	<9.32		50.0	9.32	ug/L			01/30/14 14:19	
2,2-Dichloropropane	<0.400		1.00	0.400	ug/L			01/30/14 14:19	
2-Butanone (MEK)	<1.32		10.0	1.32	ug/L			01/30/14 14:19	
2-Chlorotoluene	<0.860		1.00	0.860	ug/L			01/30/14 14:19	
2-Hexanone	<1.24		10.0	1.24	ug/L			01/30/14 14:19	
4-Chlorotoluene	<0.840		1.00	0.840	ug/L			01/30/14 14:19	
4-Isopropyltoluene	<0.310		1.00	0.310	ug/L			01/30/14 14:19	
4-Methyl-2-pentanone (MIBK)	<2.10		10.0	2.10	ug/L			01/30/14 14:19	
Acetone	<3.00		50.0	3.00	ug/L			01/30/14 14:19	
Benzene	<0.410		1.00	0.410	ug/L			01/30/14 14:19	
Bromobenzene	<0.800		1.00	0.800	ug/L			01/30/14 14:19	
Bromoform	<0.260		1.00	0.260	ug/L			01/30/14 14:19	
Bromomethane	<0.690		2.00	0.690	ug/L			01/30/14 14:19	
Carbon disulfide	<0.190		10.0	0.190	ug/L			01/30/14 14:19	
Carbon tetrachloride	<0.270		1.00	0.270	ug/L			01/30/14 14:19	•
Chlorobenzene	<0.750		1.00	0.750	ug/L			01/30/14 14:19	
Chlorobromomethane	<0.870		1.00	0.870	ug/L			01/30/14 14:19	
Chlorodibromomethane	<0.320		0.500	0.320	ug/L			01/30/14 14:19	
Chloroethane	<0.320		2.00	0.320	ug/L			01/30/14 14:19	
Chloroform	<0.340		1.00	0.340	ug/L			01/30/14 14:19	
Chloromethane	<0.350		2.00	0.350	ug/L			01/30/14 14:19	
cis-1,2-Dichloroethene	<0.810		1.00	0.810	ug/L			01/30/14 14:19	
cis-1,3-Dichloropropene	<0.360		0.400	0.360	ug/L			01/30/14 14:19	
Dichlorobromomethane	<0.390		0.500	0.390	ug/L			01/30/14 14:19	•
Dichlorodifluoromethane	<0.680		1.00	0.680	ug/L			01/30/14 14:19	
Ethyl ether	<0.720		1.00	0.720	ug/L			01/30/14 14:19	
Ethylbenzene	<0.740		1.00	0.740	ug/L			01/30/14 14:19	

TestAmerica Buffalo

01/30/14 14:19

01/30/14 14:19

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1.00

0.400

0.730 ug/L

0.280 ug/L

< 0.730

<0.280

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

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Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-163849/8

**Matrix: Water** 

Analysis Batch: 163849

Client Sample ID: Method Blank Prep Type: Total/NA

MB MB Result Qualifier RL MDL Unit D Dil Fac Analyte Prepared Analyzed <0.590 10.0 0.590 ug/L 01/30/14 14:19 Isopropyl ether Isopropylbenzene < 0.790 1.00 0.790 ug/L 01/30/14 14:19 Methyl tert-butyl ether <0.160 1.00 0.160 ug/L 01/30/14 14:19 Methylene Chloride < 0.440 1.00 0.440 ug/L 01/30/14 14:19 <0.660 2.00 0.660 ug/L 01/30/14 14:19 m-Xylene & p-Xylene Naphthalene < 0.430 5.00 0.430 ug/L 01/30/14 14:19 n-Butylbenzene < 0.640 1.00 0.640 ug/L 01/30/14 14:19 N-Propylbenzene < 0.690 1.00 0.690 ug/L 01/30/14 14:19 o-Xylene < 0.760 1.00 0.760 ug/L 01/30/14 14:19 sec-Butylbenzene < 0.750 1.00 0.750 ug/L 01/30/14 14:19 Styrene < 0.730 1.00 0.730 ug/L 01/30/14 14:19 Tert-amyl methyl ether <0.270 5.00 0.270 ug/L 01/30/14 14:19 Tert-butyl ethyl ether < 0.294 5.00 0.294 ug/L 01/30/14 14:19 tert-Butylbenzene < 0.810 1.00 0.810 ug/L 01/30/14 14:19 Tetrachloroethene < 0.360 1.00 0.360 ug/L 01/30/14 14:19 Tetrahydrofuran <1.25 10.0 1.25 ug/L 01/30/14 14:19 1.00 0.510 ug/L 01/30/14 14:19 Toluene < 0.510 trans-1,2-Dichloroethene <0.900 1.00 0.900 ug/L 01/30/14 14:19 trans-1,3-Dichloropropene < 0.370 0.400 0.370 ug/L 01/30/14 14:19 Trichloroethene < 0.460 1.00 0.460 ug/L 01/30/14 14:19 Trichlorofluoromethane <0.880 1.00 0.880 ug/L 01/30/14 14:19 Vinvl chloride < 0.900 1.00 0.900 ug/L 01/30/14 14:19

MB MB

< 0.410

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		01/30/14 14:19	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		01/30/14 14:19	1
4-Bromofluorobenzene (Surr)	98		70 - 130		01/30/14 14:19	1

1.00

0.410 ug/L

Lab Sample ID: LCS 480-163849/5

Matrix: Water

Dibromomethane

Analysis Batch: 163849

Client Sample I	D: Lab Control Sample
	Prep Type: Total/NA

01/30/14 14:19

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	25.0	26.87		ug/L		107	70 - 130
1,1,1-Trichloroethane	25.0	26.71		ug/L		107	70 - 130
1,1,2,2-Tetrachloroethane	25.0	26.75		ug/L		107	70 - 130
1,1,2-Trichloroethane	25.0	25.59		ug/L		102	70 - 130
1,1-Dichloroethane	25.0	26.80		ug/L		107	70 - 130
1,1-Dichloroethene	25.0	26.45		ug/L		106	70 - 130
1,1-Dichloropropene	25.0	27.62		ug/L		110	70 - 130
1,2,3-Trichlorobenzene	25.0	27.28		ug/L		109	70 - 130
1,2,3-Trichloropropane	25.0	26.46		ug/L		106	70 - 130
1,2,4-Trichlorobenzene	25.0	27.08		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	25.0	26.27		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	27.22		ug/L		109	70 - 130
1,2-Dichlorobenzene	25.0	26.47		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	26.53		ug/L		106	70 - 130

### **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

**Client Sample ID: Lab Control Sample** 

Lab Sample ID: LCS 480-163849/5

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analysis Batch: 163849						Prep Type: Total/N
,	Spike	LCS	LCS			%Rec.
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits
1,2-Dichloropropane	25.0	27.04	ug/L		108	70 - 130
1,3,5-Trimethylbenzene	25.0	26.68	ug/L		107	70 - 130
1,3-Dichlorobenzene	25.0	26.56	ug/L		106	70 - 130
1,3-Dichloropropane	25.0	25.91	ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	26.31	ug/L		105	70 - 130
1,4-Dioxane	500	427.6	ug/L		86	70 - 130
2,2-Dichloropropane	25.0	27.02	ug/L		108	70 - 130
2-Butanone (MEK)	125	238.5	* ug/L		191	70 - 130
2-Chlorotoluene	25.0	26.80	ug/L		107	70 - 130
2-Hexanone	125	140.2	ug/L		112	70 - 130
4-Chlorotoluene	25.0	24.58	ug/L		98	70 - 130
4-Isopropyltoluene	25.0	27.29	ug/L		109	70 - 130
4-Methyl-2-pentanone (MIBK)	125	133.3	ug/L		107	70 - 130
Acetone	125	145.5	ug/L		116	70 - 130
Benzene	25.0	26.44	ug/L		106	70 - 130
Bromobenzene	25.0	26.32	ug/L		105	70 - 130
Bromoform	25.0	28.47	ug/L		114	70 - 130
Bromomethane	25.0	27.07	ug/L		108	70 <sub>-</sub> 130
Carbon disulfide	25.0	27.42	ug/L		110	70 - 130
Carbon tetrachloride	25.0	27.55	ug/L		110	70 - 130
Chlorobenzene	25.0	27.06	ug/L		108	70 - 130
Chlorobromomethane	25.0	26.67	ug/L		107	70 <sub>-</sub> 130
Chlorodibromomethane	24.5	26.88	ug/L		110	70 - 130
Chloroethane	25.0	29.14	ug/L		117	70 - 130
Chloroform	25.0	25.51	ug/L		102	70 <sub>-</sub> 130
Chloromethane	25.0	25.33	ug/L		101	70 - 130
cis-1,2-Dichloroethene	25.0	26.61	ug/L		106	70 <sub>-</sub> 130
cis-1,3-Dichloropropene	25.0	27.62	ug/L		110	70 - 130
Dichlorobromomethane	25.0	26.91	ug/L		108	70 - 130
Dichlorodifluoromethane	25.0	26.47	ug/L		106	70 - 130
Ethyl ether	25.0	27.08	ug/L		108	70 - 130
Ethylbenzene	25.0	26.90	ug/L		108	70 - 130
Ethylene Dibromide	25.0	26.05	ug/L		104	70 - 130
Hexachlorobutadiene	25.0	27.23	ug/L		109	70 - 130
Isopropyl ether	25.0	25.33	ug/L		101	70 - 130
Isopropylbenzene	25.0	26.79	ug/L		107	70 - 130
Methyl tert-butyl ether	25.0	26.01	ug/L		104	70 - 130
Methylene Chloride	25.0	26.50	ug/L		106	70 - 130
m-Xylene & p-Xylene	25.0	26.42	ug/L		106	70 <sub>-</sub> 130
Naphthalene	25.0	27.00	ug/L		108	70 <sub>-</sub> 130
n-Butylbenzene	25.0	27.17				70 - 130
N-Propylbenzene	25.0 25.0	26.95	ug/L ug/L		109 108	70 - 130 70 - 130
	25.0 25.0	26.95	_			70 <sub>-</sub> 130 70 <sub>-</sub> 130
o-Xylene			ug/L		104	
sec-Butylbenzene	25.0	26.88	ug/L		108	70 <sub>-</sub> 130
Styrene	25.0	27.11	ug/L		108	70 <sub>-</sub> 130
Tert-amyl methyl ether	25.0	26.60	ug/L		106	70 - 130
Tert-butyl ethyl ether	25.0 25.0	24.95 27.56	ug/L ug/L		100 110	70 <sub>-</sub> 130 70 <sub>-</sub> 130

TestAmerica Buffalo

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### **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-163849/5

**Matrix: Water** 

Analysis Batch: 163849

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	25.0	26.93		ug/L		108	70 - 130	
Tetrahydrofuran	50.0	68.78	*	ug/L		138	70 - 130	
Toluene	25.0	26.33		ug/L		105	70 - 130	
trans-1,2-Dichloroethene	25.0	26.70		ug/L		107	70 - 130	
trans-1,3-Dichloropropene	25.0	26.58		ug/L		106	70 - 130	
Trichloroethene	25.0	26.77		ug/L		107	70 - 130	
Trichlorofluoromethane	25.0	28.80		ug/L		115	70 - 130	
Vinyl chloride	25.0	25.92		ug/L		104	70 - 130	
Dibromomethane	25.0	25.56		ug/L		102	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 480-163849/6

**Matrix: Water** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 163849									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	25.0	26.71		ug/L		107	70 - 130	1	20
1,1,1-Trichloroethane	25.0	25.89		ug/L		104	70 - 130	3	20
1,1,2,2-Tetrachloroethane	25.0	25.92		ug/L		104	70 - 130	3	20
1,1,2-Trichloroethane	25.0	25.47		ug/L		102	70 - 130	0	20
1,1-Dichloroethane	25.0	26.16		ug/L		105	70 - 130	2	20
1,1-Dichloroethene	25.0	25.14		ug/L		101	70 - 130	5	20
1,1-Dichloropropene	25.0	26.26		ug/L		105	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	27.31		ug/L		109	70 - 130	0	20
1,2,3-Trichloropropane	25.0	25.98		ug/L		104	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	27.44		ug/L		110	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	25.53		ug/L		102	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	26.68		ug/L		107	70 - 130	2	20
1,2-Dichlorobenzene	25.0	25.38		ug/L		102	70 - 130	4	20
1,2-Dichloroethane	25.0	25.78		ug/L		103	70 - 130	3	20
1,2-Dichloropropane	25.0	25.97		ug/L		104	70 - 130	4	20
1,3,5-Trimethylbenzene	25.0	25.29		ug/L		101	70 - 130	5	20
1,3-Dichlorobenzene	25.0	25.44		ug/L		102	70 - 130	4	20
1,3-Dichloropropane	25.0	25.66		ug/L		103	70 - 130	1	20
1,4-Dichlorobenzene	25.0	25.86		ug/L		103	70 - 130	2	20
1,4-Dioxane	500	512.9		ug/L		103	70 - 130	18	20
2,2-Dichloropropane	25.0	26.55		ug/L		106	70 - 130	2	20
2-Butanone (MEK)	125	229.7	*	ug/L		184	70 - 130	4	20
2-Chlorotoluene	25.0	25.86		ug/L		103	70 - 130	4	20
2-Hexanone	125	136.7		ug/L		109	70 - 130	3	20
4-Chlorotoluene	25.0	23.43		ug/L		94	70 - 130	5	20
4-Isopropyltoluene	25.0	25.79		ug/L		103	70 - 130	6	20
4-Methyl-2-pentanone (MIBK)	125	131.1		ug/L		105	70 - 130	2	20
Acetone	125	139.6		ug/L		112	70 - 130	4	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-163849/6

**Matrix: Water** 

Analysis Batch: 163849

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** 

•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	25.0	25.64		ug/L		103	70 - 130	3	20
Bromobenzene	25.0	25.24		ug/L		101	70 - 130	4	20
Bromoform	25.0	28.19		ug/L		113	70 - 130	1	20
Bromomethane	25.0	29.27		ug/L		117	70 - 130	8	20
Carbon disulfide	25.0	26.76		ug/L		107	70 - 130	2	20
Carbon tetrachloride	25.0	26.91		ug/L		108	70 - 130	2	20
Chlorobenzene	25.0	26.69		ug/L		107	70 - 130	1	20
Chlorobromomethane	25.0	25.69		ug/L		103	70 - 130	4	20
Chlorodibromomethane	24.5	26.54		ug/L		108	70 - 130	1	20
Chloroethane	25.0	29.10		ug/L		116	70 - 130	0	20
Chloroform	25.0	24.56		ug/L		98	70 - 130	4	20
Chloromethane	25.0	23.90		ug/L		96	70 - 130	6	20
cis-1,2-Dichloroethene	25.0	26.40		ug/L		106	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	26.26		ug/L		105	70 - 130	5	20
Dichlorobromomethane	25.0	25.67		ug/L		103	70 - 130	5	20
Dichlorodifluoromethane	25.0	25.64		ug/L		103	70 - 130	3	20
Ethyl ether	25.0	27.56		ug/L		110	70 - 130	2	20
Ethylbenzene	25.0	26.45		ug/L		106	70 - 130	2	20
Ethylene Dibromide	25.0	25.50		ug/L		102	70 - 130	2	20
Hexachlorobutadiene	25.0	26.19		ug/L		105	70 - 130	4	20
Isopropyl ether	25.0	24.97		ug/L		100	70 - 130	1	20
Isopropylbenzene	25.0	25.49		ug/L		102	70 - 130	5	20
Methyl tert-butyl ether	25.0	25.98		ug/L		104	70 - 130	0	20
Methylene Chloride	25.0	26.09		ug/L		104	70 - 130	2	20
m-Xylene & p-Xylene	25.0	25.61		ug/L		102	70 - 130	3	20
Naphthalene	25.0	27.15		ug/L		109	70 - 130	1	20
n-Butylbenzene	25.0	26.21		ug/L		105	70 - 130	4	20
N-Propylbenzene	25.0	25.41		ug/L		102	70 - 130	6	20
o-Xylene	25.0	25.90		ug/L		104	70 - 130	0	20
sec-Butylbenzene	25.0	25.67		ug/L		103	70 - 130	5	20
Styrene	25.0	26.50		ug/L		106	70 - 130	2	20
Tert-amyl methyl ether	25.0	25.83		ug/L		103	70 - 130	3	20
Tert-butyl ethyl ether	25.0	24.40		ug/L		98	70 - 130	2	20
tert-Butylbenzene	25.0	26.22		ug/L		105	70 - 130	5	20
Tetrachloroethene	25.0	26.66		ug/L		107	70 - 130	1	20
Tetrahydrofuran	50.0	67.57	*	ug/L		135	70 - 130	2	20
Toluene	25.0	25.46		ug/L		102	70 - 130	3	20
trans-1,2-Dichloroethene	25.0	25.88		ug/L		104	70 - 130	3	20
trans-1,3-Dichloropropene	25.0	26.13		ug/L		105	70 - 130	2	20
Trichloroethene	25.0	26.05		ug/L		104	70 - 130	3	20
Trichlorofluoromethane	25.0	28.07		ug/L		112	70 - 130	3	20
Vinyl chloride	25.0	24.91		ug/L		100	70 - 130	4	20
Dibromomethane	25.0	25.63		ug/L		103	70 - 130	0	20

LCSD LCSD Surrogate %Recovery Qualifier Limits Toluene-d8 (Surr) 70 - 130 99

1,2-Dichloroethane-d4 (Surr) 102 70 - 130 4-Bromofluorobenzene (Surr) 70 - 130 103

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-163954/7

**Matrix: Water** 

Analysis Batch: 163954

cis-1,3-Dichloropropene

Dichlorobromomethane

Dichlorodifluoromethane

Ethyl ether

Ethylbenzene

Ethylene Dibromide

Hexachlorobutadiene

Client Sample ID: Method Blank Prep Type: Total/NA

	IVID IVID							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.350	1.00	0.350	ug/L			01/31/14 00:48	1
1,1,1-Trichloroethane	<0.820	1.00	0.820	ug/L			01/31/14 00:48	1
1,1,2,2-Tetrachloroethane	<0.210	0.500	0.210	ug/L			01/31/14 00:48	1
1,1,2-Trichloroethane	<0.230	1.00	0.230	ug/L			01/31/14 00:48	1
1,1-Dichloroethane	<0.380	1.00	0.380	ug/L			01/31/14 00:48	1
1,1-Dichloroethene	<0.290	1.00	0.290	ug/L			01/31/14 00:48	1
1,1-Dichloropropene	<0.720	1.00	0.720	ug/L			01/31/14 00:48	1
1,2,3-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 00:48	1
1,2,3-Trichloropropane	<0.890	1.00	0.890	ug/L			01/31/14 00:48	1
1,2,4-Trichlorobenzene	<0.410	1.00	0.410	ug/L			01/31/14 00:48	1
1,2,4-Trimethylbenzene	<0.750	1.00	0.750	ug/L			01/31/14 00:48	1
1,2-Dibromo-3-Chloropropane	<0.390	5.00	0.390	ug/L			01/31/14 00:48	1
1,2-Dichlorobenzene	<0.790	1.00	0.790	ug/L			01/31/14 00:48	1
1,2-Dichloroethane	<0.210	1.00	0.210	ug/L			01/31/14 00:48	1
1,2-Dichloropropane	<0.720	1.00	0.720	ug/L			01/31/14 00:48	1
1,3,5-Trimethylbenzene	<0.770	1.00	0.770	ug/L			01/31/14 00:48	1
1,3-Dichlorobenzene	<0.780	1.00	0.780	ug/L			01/31/14 00:48	1
1,3-Dichloropropane	<0.750	1.00	0.750	ug/L			01/31/14 00:48	1
1,4-Dichlorobenzene	<0.840	1.00	0.840	ug/L			01/31/14 00:48	1
1,4-Dioxane	<9.32	50.0	9.32	ug/L			01/31/14 00:48	1
2,2-Dichloropropane	<0.400	1.00	0.400	ug/L			01/31/14 00:48	1
2-Butanone (MEK)	<1.32	10.0	1.32	ug/L			01/31/14 00:48	1
2-Chlorotoluene	<0.860	1.00	0.860	ug/L			01/31/14 00:48	1
2-Hexanone	<1.24	10.0	1.24	ug/L			01/31/14 00:48	1
4-Chlorotoluene	<0.840	1.00	0.840	ug/L			01/31/14 00:48	1
4-Isopropyltoluene	<0.310	1.00	0.310	ug/L			01/31/14 00:48	1
4-Methyl-2-pentanone (MIBK)	<2.10	10.0	2.10	ug/L			01/31/14 00:48	1
Acetone	<3.00	50.0	3.00	ug/L			01/31/14 00:48	1
Benzene	<0.410	1.00	0.410	ug/L			01/31/14 00:48	1
Bromobenzene	<0.800	1.00	0.800	ug/L			01/31/14 00:48	1
Bromoform	<0.260	1.00	0.260	ug/L			01/31/14 00:48	1
Bromomethane	<0.690	2.00	0.690	ug/L			01/31/14 00:48	1
Carbon disulfide	<0.190	10.0	0.190	ug/L			01/31/14 00:48	1
Carbon tetrachloride	<0.270	1.00	0.270	ug/L			01/31/14 00:48	1
Chlorobenzene	<0.750	1.00	0.750	ug/L			01/31/14 00:48	1
Chlorobromomethane	<0.870	1.00	0.870	ug/L			01/31/14 00:48	1
Chlorodibromomethane	<0.320	0.500	0.320	ug/L			01/31/14 00:48	1
Chloroethane	<0.320	2.00	0.320	ug/L			01/31/14 00:48	1
Chloroform	<0.340	1.00	0.340	ug/L			01/31/14 00:48	1
Chloromethane	<0.350	2.00	0.350	ug/L			01/31/14 00:48	1
cis-1,2-Dichloroethene	<0.810	1.00	0.810	ug/L			01/31/14 00:48	1

TestAmerica Buffalo

01/31/14 00:48

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0.400

0.500

1.00

1.00

1.00

1.00

0.400

0.360 ug/L

0.390 ug/L

0.680 ug/L

0.720 ug/L

0.740 ug/L

0.730 ug/L

0.280 ug/L

<0.360

< 0.390

<0.680

< 0.720

< 0.740

< 0.730

<0.280

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: MB 480-163954/7

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

**Matrix: Water** 

Analysis Batch: 163954

Client Sample ID: Method Blank Prep Type: Total/NA

MB MB Result Qualifier RL MDL Unit D Dil Fac Analyte Prepared Analyzed <0.590 10.0 0.590 ug/L 01/31/14 00:48 Isopropyl ether Isopropylbenzene < 0.790 1.00 0.790 ug/L 01/31/14 00:48 Methyl tert-butyl ether <0.160 1.00 0.160 ug/L 01/31/14 00:48 Methylene Chloride < 0.440 1.00 0.440 ug/L 01/31/14 00:48 <0.660 2.00 0.660 ug/L m-Xylene & p-Xylene 01/31/14 00:48 Naphthalene < 0.430 5.00 0.430 ug/L 01/31/14 00:48 n-Butylbenzene < 0.640 1.00 0.640 ug/L 01/31/14 00:48 N-Propylbenzene < 0.690 1.00 0.690 ug/L 01/31/14 00:48 o-Xylene < 0.760 1.00 0.760 ug/L 01/31/14 00:48 sec-Butylbenzene < 0.750 1.00 0.750 ug/L 01/31/14 00:48 Styrene < 0.730 1.00 0.730 ug/L 01/31/14 00:48 Tert-amyl methyl ether <0.270 5.00 0.270 ug/L 01/31/14 00:48 Tert-butyl ethyl ether < 0.294 5.00 0.294 ug/L 01/31/14 00:48 tert-Butylbenzene < 0.810 1.00 0.810 ug/L 01/31/14 00:48 Tetrachloroethene < 0.360 1.00 0.360 ug/L 01/31/14 00:48 Tetrahydrofuran <1.25 10.0 1.25 ug/L 01/31/14 00:48 1.00 0.510 ug/L 01/31/14 00:48 Toluene < 0.510 trans-1,2-Dichloroethene <0.900 1.00 0.900 ug/L 01/31/14 00:48 trans-1,3-Dichloropropene < 0.370 0.400 0.370 ug/L 01/31/14 00:48 Trichloroethene < 0.460 1.00 0.460 ug/L 01/31/14 00:48 Trichlorofluoromethane <0.880 1.00 0.880 ug/L 01/31/14 00:48 Vinvl chloride < 0.900 1.00 0.900 ug/L 01/31/14 00:48 Dibromomethane < 0.410 1.00 0.410 ug/L 01/31/14 00:48

MB MB

Surrogate	%Recovery	Qualifier	Limits	P	repared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130			01/31/14 00:48	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 130			01/31/14 00:48	1
4-Bromofluorobenzene (Surr)	96		70 - 130			01/31/14 00:48	1

Lab Sample ID: LCS 480-163954/4

**Matrix: Water** 

Analysis Batch: 163954

Client Sample ID:	Lab Control Sample
	Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	25.0	25.11		ug/L		100	70 - 130
1,1,1-Trichloroethane	25.0	24.59		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.17		ug/L		101	70 - 130
1,1,2-Trichloroethane	25.0	24.75		ug/L		99	70 - 130
1,1-Dichloroethane	25.0	25.09		ug/L		100	70 - 130
1,1-Dichloroethene	25.0	24.15		ug/L		97	70 - 130
1,1-Dichloropropene	25.0	24.97		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	25.0	26.97		ug/L		108	70 - 130
1,2,3-Trichloropropane	25.0	25.07		ug/L		100	70 - 130
1,2,4-Trichlorobenzene	25.0	26.98		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	25.0	25.15		ug/L		101	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.07		ug/L		104	70 - 130
1,2-Dichlorobenzene	25.0	24.68		ug/L		99	70 - 130
1,2-Dichloroethane	25.0	24.70		ug/L		99	70 - 130

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### **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

000 IB. 100 00000 1

#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-163954/4

**Matrix: Water** 

Analysis Batch: 163954

<b>Client Sample ID</b>	: Lab Control Sample
	Prep Type: Total/NA

Analysis Batch: 163954	Spike	LCS	LCS				%Rec.
Analyte	Added			Unit	D	%Rec	Limits
1,2-Dichloropropane	25.0	25.00		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	25.0	25.47		ug/L		102	70 - 130
1,3-Dichlorobenzene	25.0	25.13		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	24.70		ug/L		99	70 - 130
1,4-Dichlorobenzene	25.0	25.22		ug/L		101	70 - 130
1,4-Dioxane	500	481.0		ug/L		96	70 - 130
2,2-Dichloropropane	25.0	24.32		ug/L		97	70 <sub>-</sub> 130
2-Butanone (MEK)	125	131.4		ug/L		105	70 - 130
2-Chlorotoluene	25.0	25.31		ug/L		101	70 - 130
2-Hexanone	125	130.5		ug/L ug/L		104	70 - 130 70 - 130
4-Chlorotoluene	25.0	23.82				95	70 - 130
	25.0			ug/L			
4-Isopropyltoluene		26.12		ug/L		104	70 <sub>-</sub> 130
4-Methyl-2-pentanone (MIBK)	125	125.5		ug/L		100	70 - 130
Acetone	125	135.2		ug/L		108	70 <sub>-</sub> 130
Benzene	25.0	24.68		ug/L		99	70 - 130
Bromobenzene	25.0	25.34		ug/L		101	70 - 130
Bromoform	25.0	25.56		ug/L		102	70 - 130
Bromomethane	25.0	26.36		ug/L		105	70 - 130
Carbon disulfide	25.0	24.80		ug/L		99	70 - 130
Carbon tetrachloride	25.0	24.75		ug/L		99	70 - 130
Chlorobenzene	25.0	25.15		ug/L		101	70 - 130
Chlorobromomethane	25.0	24.59		ug/L		98	70 - 130
Chlorodibromomethane	24.5	24.80	İ	ug/L		101	70 - 130
Chloroethane	25.0	27.19	1	ug/L		109	70 - 130
Chloroform	25.0	23.39		ug/L		94	70 - 130
Chloromethane	25.0	25.16	1	ug/L		101	70 - 130
cis-1,2-Dichloroethene	25.0	24.87	1	ug/L		99	70 - 130
cis-1,3-Dichloropropene	25.0	25.33		ug/L		101	70 - 130
Dichlorobromomethane	25.0	24.88	ĺ	ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	25.60	İ	ug/L		102	70 _ 130
Ethyl ether	25.0	24.79	ı	ug/L		99	70 - 130
Ethylbenzene	25.0	25.11		ug/L		100	70 - 130
Ethylene Dibromide	25.0	24.08	ı	ug/L		96	70 - 130
Hexachlorobutadiene	25.0	25.82	1	ug/L		103	70 - 130
Isopropyl ether	25.0	26.27		ug/L		105	70 - 130
Isopropylbenzene	25.0	25.46	1	ug/L		102	70 - 130
Methyl tert-butyl ether	25.0	24.42	İ	ug/L		98	70 - 130
Methylene Chloride	25.0	23.92		ug/L		96	70 - 130
m-Xylene & p-Xylene	25.0	24.38	1	ug/L		98	70 <sub>-</sub> 130
Naphthalene	25.0	26.14	1	ug/L		105	70 <sub>-</sub> 130
n-Butylbenzene	25.0	26.08		ug/L		104	70 - 130
N-Propylbenzene	25.0	25.55	1	ug/L		102	70 - 130
o-Xylene	25.0	24.52	ĺ	ug/L		98	70 - 130
sec-Butylbenzene	25.0	25.34		ug/L		101	70 _ 130
Styrene	25.0	25.16		ug/L		101	70 - 130
Tert-amyl methyl ether	25.0	26.15		ug/L		105	70 - 130
Tert-butyl ethyl ether	25.0	24.95		ug/L		100	70 - 130
tert-Butylbenzene	25.0	26.41		ug/L		106	70 - 130

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### **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-163954/4

**Matrix: Water** 

Analysis Batch: 163954

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	25.0	25.74		ug/L		103	70 - 130	
Tetrahydrofuran	50.0	65.56	*	ug/L		131	70 - 130	
Toluene	25.0	24.50		ug/L		98	70 _ 130	
trans-1,2-Dichloroethene	25.0	24.80		ug/L		99	70 - 130	
trans-1,3-Dichloropropene	25.0	25.61		ug/L		102	70 - 130	
Trichloroethene	25.0	25.39		ug/L		102	70 - 130	
Trichlorofluoromethane	25.0	27.09		ug/L		108	70 _ 130	
Vinyl chloride	25.0	25.48		ug/L		102	70 - 130	
Dibromomethane	25.0	24.19		ug/L		97	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
Toluene-d8 (Surr)	99	70 - 130
1,2-Dichloroethane-d4 (Surr)	100	70 - 130
4-Bromofluorobenzene (Surr)	103	70 - 130

Lab Sample ID: LCSD 480-163954/5

**Matrix: Water** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Wattix. Water							Trep Type. Total/NA		
Analysis Batch: 163954	0	LCSD	1 00D				0/ D		DDD
Analyte	Spike Added		Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane		25.15	Qualifier	ug/L		101	70 <sub>-</sub> 130		20
1,1,1-Trichloroethane	25.0	23.15		ug/L ug/L		95	70 - 130 70 - 130	4	20
1,1,2,2-Tetrachloroethane	25.0	24.71		ug/L ug/L		99	70 - 130 70 - 130	2	20
1,1,2-Trichloroethane	25.0	24.71		ug/L ug/L		97	70 - 130	3	20
1,1-Dichloroethane	25.0	24.38		ug/L		98	70 - 130 70 - 130	3	20
1,1-Dichloroethene	25.0	23.57		ug/L		94	70 - 130 70 - 130	2	20
1,1-Dichloropropene	25.0	24.29		ug/L		97	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	25.18		ug/L		101	70 - 130 70 - 130	7	20
1,2,3-Trichloropropane	25.0	25.14		ug/L		101	70 - 130 70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	26.04		ug/L		104	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	24.19		ug/L		97	70 - 130 70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	24.68		ug/L		99	70 - 130 70 - 130	5	20
1.2-Dichlorobenzene	25.0	23.87		ug/L		95	70 - 130	3	20
1,2-Dichloroethane	25.0	23.92		ug/L		96	70 - 130 70 - 130	3	20
1,2-Dichloropropane	25.0	24.90		ug/L		100	70 - 130 70 - 130	0	20
1,3,5-Trimethylbenzene	25.0	23.68		ug/L		95	70 - 130	7	20
1,3-Dichlorobenzene	25.0	24.31		ug/L		97	70 - 130 70 - 130	3	20
1,3-Dichloropropane	25.0	24.62		ug/L		98	70 - 130	0	20
1,4-Dichlorobenzene	25.0	24.22		ug/L		97	70 - 130	4	20
1,4-Dioxane	500	502.4		ug/L		100	70 - 130 70 - 130	4	20
2,2-Dichloropropane	25.0	23.32		ug/L		93	70 - 130	4	20
2-Butanone (MEK)	125	125.0		ug/L		100	70 - 130		20
2-Chlorotoluene	25.0	24.35		ug/L		97	70 - 130	4	20
2-Hexanone	125	133.0		ug/L		106	70 - 130 70 <sub>-</sub> 130	2	20
4-Chlorotoluene	25.0	22.53		ug/L		90	70 - 130	6	20
4-Isopropyltoluene	25.0	24.41		ug/L		98	70 - 130	7	20
4-Methyl-2-pentanone (MIBK)	125	127.8		ug/L		102	70 - 130 70 - 130	2	20
Acetone (Wilsty)	125	130.6		ug/L		104	70 - 130	3	20
710010110	123	100.0		ug/L		10-7	. 0 - 100	3	20

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-163954/5

**Matrix: Water** 

Analysis Batch: 163954

**Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA** 

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	25.0	23.96		ug/L		96	70 - 130	3	20
Bromobenzene	25.0	24.71		ug/L		99	70 - 130	3	20
Bromoform	25.0	25.43		ug/L		102	70 - 130	0	20
Bromomethane	25.0	26.07		ug/L		104	70 - 130	1	20
Carbon disulfide	25.0	23.62		ug/L		94	70 - 130	5	20
Carbon tetrachloride	25.0	23.96		ug/L		96	70 - 130	3	20
Chlorobenzene	25.0	24.73		ug/L		99	70 - 130	2	20
Chlorobromomethane	25.0	24.04		ug/L		96	70 - 130	2	20
Chlorodibromomethane	24.5	24.59		ug/L		100	70 - 130	1	20
Chloroethane	25.0	25.73		ug/L		103	70 - 130	6	20
Chloroform	25.0	22.99		ug/L		92	70 - 130	2	20
Chloromethane	25.0	24.11		ug/L		96	70 - 130	4	20
cis-1,2-Dichloroethene	25.0	24.63		ug/L		99	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	25.08		ug/L		100	70 - 130	1	20
Dichlorobromomethane	25.0	24.10		ug/L		96	70 - 130	3	20
Dichlorodifluoromethane	25.0	23.58		ug/L		94	70 - 130	8	20
Ethyl ether	25.0	24.84		ug/L		99	70 - 130	0	20
Ethylbenzene	25.0	24.72		ug/L		99	70 - 130	2	20
Ethylene Dibromide	25.0	24.35		ug/L		97	70 - 130	1	20
Hexachlorobutadiene	25.0	23.99		ug/L		96	70 - 130	7	20
Isopropyl ether	25.0	25.84		ug/L		103	70 - 130	2	20
Isopropylbenzene	25.0	24.14		ug/L		97	70 - 130	5	20
Methyl tert-butyl ether	25.0	24.26		ug/L		97	70 - 130	1	20
Methylene Chloride	25.0	23.00		ug/L		92	70 - 130	4	20
m-Xylene & p-Xylene	25.0	24.13		ug/L		97	70 - 130	1	20
Naphthalene	25.0	25.16		ug/L		101	70 - 130	4	20
n-Butylbenzene	25.0	24.75		ug/L		99	70 - 130	5	20
N-Propylbenzene	25.0	24.22		ug/L		97	70 - 130	5	20
o-Xylene	25.0	24.14		ug/L		97	70 - 130	2	20
sec-Butylbenzene	25.0	24.01		ug/L		96	70 - 130	5	20
Styrene	25.0	25.27		ug/L		101	70 - 130	0	20
Tert-amyl methyl ether	25.0	25.85		ug/L		103	70 - 130	1	20
Tert-butyl ethyl ether	25.0	24.77		ug/L		99	70 - 130	1	20
tert-Butylbenzene	25.0	25.58		ug/L		102	70 - 130	3	20
Tetrachloroethene	25.0	25.17		ug/L		101	70 - 130	2	20
Tetrahydrofuran	50.0	63.85		ug/L		128	70 - 130	3	20
Toluene	25.0	24.39		ug/L		98	70 <sub>-</sub> 130	0	20
trans-1,2-Dichloroethene	25.0	24.16		ug/L		97	70 - 130	3	20
trans-1,3-Dichloropropene	25.0	23.96		ug/L		96	70 - 130	7	20
Trichloroethene	25.0	24.25		ug/L		97	70 - 130	5	20
Trichlorofluoromethane	25.0	26.38		ug/L		106	70 - 130	3	20
Vinyl chloride	25.0	24.26		ug/L		97	70 - 130	5	20
Dibromomethane	25.0	23.73		ug/L		95	70 - 130	2	20

	LCSD	LUSD	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1.2 Diablaracthana d4 (Surr)	00		70 120

Tolue 1,2-Dichloroethane-d4 (Surr) 70 - 130 70 - 130 4-Bromofluorobenzene (Surr) 104

# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-164048/7

**Matrix: Water** 

Client Sam	ole I	D:	Meth	od	Blanl	•
	Pre	рT	уре:	Tot	tal/NA	١

Watrix. Water								Fieb Type.	Otal/IVA
Analysis Batch: 164048	MD	МВ							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.350		1.00	0.350			Торатоа	01/31/14 13:27	1
1,1,1-Trichloroethane	<0.820		1.00	0.820				01/31/14 13:27	1
1,1,2,2-Tetrachloroethane	<0.210		0.500	0.210				01/31/14 13:27	1
1,1,2-Trichloroethane	<0.230		1.00	0.230				01/31/14 13:27	1
1,1-Dichloroethane	<0.380		1.00	0.380				01/31/14 13:27	1
1,1-Dichloroethene	<0.290		1.00	0.290				01/31/14 13:27	1
1,1-Dichloropropene	<0.720		1.00	0.720				01/31/14 13:27	1
1,2,3-Trichlorobenzene	<0.410		1.00	0.410	-			01/31/14 13:27	1
1,2,3-Trichloropropane	<0.890		1.00	0.890				01/31/14 13:27	1
1,2,4-Trichlorobenzene	<0.410		1.00	0.410				01/31/14 13:27	· · · · · · · 1
1,2,4-Trimethylbenzene	<0.750		1.00	0.750				01/31/14 13:27	1
1,2-Dibromo-3-Chloropropane	<0.390		5.00	0.390	-			01/31/14 13:27	1
1,2-Dichlorobenzene	<0.790		1.00	0.790				01/31/14 13:27	· · · · · · · · 1
1,2-Dichloroethane	<0.210		1.00	0.210				01/31/14 13:27	1
1,2-Dichloropropane	<0.720		1.00	0.720				01/31/14 13:27	1
1,3,5-Trimethylbenzene	<0.770		1.00	0.770	<del>.</del>			01/31/14 13:27	
1,3-Dichlorobenzene	<0.770		1.00	0.780				01/31/14 13:27	1
	<0.750		1.00	0.750	-			01/31/14 13:27	1
1,3-Dichloropropane 1,4-Dichlorobenzene	<0.730		1.00	0.730				01/31/14 13:27	1
,					-				
1,4-Dioxane	<9.32 <0.400		50.0 1.00	9.32				01/31/14 13:27	1
2,2-Dichloropropane				0.400				01/31/14 13:27	
2-Butanone (MEK)	<1.32		10.0	1.32				01/31/14 13:27	1
2-Chlorotoluene	<0.860		1.00	0.860				01/31/14 13:27	1
2-Hexanone	<1.24		10.0	1.24	-			01/31/14 13:27	1
4-Chlorotoluene	<0.840		1.00	0.840				01/31/14 13:27	1
4-Isopropyltoluene	<0.310		1.00	0.310				01/31/14 13:27	1
4-Methyl-2-pentanone (MIBK)	<2.10		10.0	2.10				01/31/14 13:27	1
Acetone	<3.00		50.0		ug/L			01/31/14 13:27	1
Benzene	<0.410		1.00	0.410				01/31/14 13:27	1
Bromobenzene	<0.800		1.00	0.800				01/31/14 13:27	
Bromoform	<0.260		1.00	0.260				01/31/14 13:27	1
Bromomethane	<0.690		2.00	0.690	-			01/31/14 13:27	1
Carbon disulfide	<0.190		10.0	0.190				01/31/14 13:27	
Carbon tetrachloride	<0.270		1.00	0.270	-			01/31/14 13:27	1
Chlorobenzene	<0.750		1.00	0.750	•			01/31/14 13:27	1
Chlorobromomethane	<0.870		1.00	0.870				01/31/14 13:27	1
Chlorodibromomethane	<0.320		0.500	0.320	-			01/31/14 13:27	1
Chloroethane	<0.320		2.00	0.320	-			01/31/14 13:27	1
Chloroform	<0.340		1.00	0.340				01/31/14 13:27	1
Chloromethane	<0.350		2.00	0.350	-			01/31/14 13:27	1
cis-1,2-Dichloroethene	<0.810		1.00	0.810	ug/L			01/31/14 13:27	1
cis-1,3-Dichloropropene	<0.360		0.400	0.360	ug/L			01/31/14 13:27	1
Dichlorobromomethane	<0.390		0.500	0.390	-			01/31/14 13:27	1
Dichlorodifluoromethane	<0.680		1.00	0.680	ug/L			01/31/14 13:27	1
Ethyl ether	<0.720		1.00	0.720	ug/L			01/31/14 13:27	1
Ethylbenzene	<0.740		1.00	0.740	ug/L			01/31/14 13:27	1
Ethylene Dibromide	<0.730		1.00	0.730	ug/L			01/31/14 13:27	1
Hexachlorobutadiene	<0.280		0.400	0.280	ug/L			01/31/14 13:27	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: Method Blank

01/31/14 13:27

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Type: Total/NA

# Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-164048/7 **Matrix: Water** 

Analysis Batch: 164048

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	<0.590		10.0	0.590	ug/L			01/31/14 13:27	1
Isopropylbenzene	<0.790		1.00	0.790	ug/L			01/31/14 13:27	1
Methyl tert-butyl ether	<0.160		1.00	0.160	ug/L			01/31/14 13:27	1
Methylene Chloride	<0.440		1.00	0.440	ug/L			01/31/14 13:27	1
m-Xylene & p-Xylene	<0.660		2.00	0.660	ug/L			01/31/14 13:27	1
Naphthalene	<0.430		5.00	0.430	ug/L			01/31/14 13:27	1
n-Butylbenzene	<0.640		1.00	0.640	ug/L			01/31/14 13:27	1
N-Propylbenzene	<0.690		1.00	0.690	ug/L			01/31/14 13:27	1
o-Xylene	<0.760		1.00	0.760	ug/L			01/31/14 13:27	1
sec-Butylbenzene	<0.750		1.00	0.750	ug/L			01/31/14 13:27	1
Styrene	<0.730		1.00	0.730	ug/L			01/31/14 13:27	1
Tert-amyl methyl ether	<0.270		5.00	0.270	ug/L			01/31/14 13:27	1
Tert-butyl ethyl ether	<0.294		5.00	0.294	ug/L			01/31/14 13:27	1
tert-Butylbenzene	<0.810		1.00	0.810	ug/L			01/31/14 13:27	1
Tetrachloroethene	<0.360		1.00	0.360	ug/L			01/31/14 13:27	1
Tetrahydrofuran	<1.25		10.0	1.25	ug/L			01/31/14 13:27	1
Toluene	<0.510		1.00	0.510	ug/L			01/31/14 13:27	1
trans-1,2-Dichloroethene	<0.900		1.00	0.900	ug/L			01/31/14 13:27	1
trans-1,3-Dichloropropene	<0.370		0.400	0.370	ug/L			01/31/14 13:27	1
Trichloroethene	<0.460		1.00	0.460	ug/L			01/31/14 13:27	1
Trichlorofluoromethane	<0.880		1.00	0.880	ug/L			01/31/14 13:27	1
Vinyl chloride	<0.900		1.00	0.900	ug/L			01/31/14 13:27	1

MB MB	

< 0.410

Surrogate	%Recovery	Qualifier	Limits	Pre	pared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130			01/31/14 13:27	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130			01/31/14 13:27	1
4-Bromofluorobenzene (Surr)	99		70 - 130			01/31/14 13:27	1

1.00

0.410 ug/L

Lab Sample ID: LCS 480-164048/4

**Matrix: Water** 

Dibromomethane

Analysis Batch: 164048	0	1.00					0/ B
	Spike		LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	12.5	11.42		ug/L		91	70 - 130
1,1,1-Trichloroethane	12.5	11.39		ug/L		91	70 - 130
1,1,2,2-Tetrachloroethane	12.5	11.03		ug/L		88	70 - 130
1,1,2-Trichloroethane	12.5	11.01		ug/L		88	70 - 130
1,1-Dichloroethane	12.5	10.81		ug/L		86	70 - 130
1,1-Dichloroethene	12.5	10.93		ug/L		87	70 - 130
1,1-Dichloropropene	12.5	11.00		ug/L		88	70 - 130
1,2,3-Trichlorobenzene	12.5	10.77		ug/L		86	70 - 130
1,2,3-Trichloropropane	12.5	10.83		ug/L		87	70 - 130
1,2,4-Trichlorobenzene	12.5	11.18		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	12.5	10.71		ug/L		86	70 - 130
1,2-Dibromo-3-Chloropropane	12.5	11.41		ug/L		91	70 _ 130
1,2-Dichlorobenzene	12.5	11.51		ug/L		92	70 _ 130
1,2-Dichloroethane	12.5	10.84		ug/L		87	70 - 130

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# **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

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#### Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-164048/4

**Matrix: Water** 

<b>Client Sample ID:</b>	<b>Lab Control Sample</b>
	Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,2-Dichloropropane	12.5	11.08		ug/L		89	70 - 130
1,3,5-Trimethylbenzene	12.5	10.81		ug/L		86	70 - 130
1,3-Dichlorobenzene	12.5	11.43		ug/L		91	70 - 130
1,3-Dichloropropane	12.5	10.92		ug/L		87	70 - 130
1,4-Dichlorobenzene	12.5	11.32		ug/L		91	70 - 130
1,4-Dioxane	250	217.4		ug/L		87	70 - 130
2,2-Dichloropropane	12.5	11.00		ug/L		88	70 - 130
2-Butanone (MEK)	62.5	103.9	*	ug/L		166	70 - 130
2-Chlorotoluene	12.5	11.23		ug/L		90	70 - 130
2-Hexanone	62.5	59.54		ug/L		95	70 - 130
4-Chlorotoluene	12.5	10.52		ug/L		84	70 - 130
4-Isopropyltoluene	12.5	11.43		ug/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	62.5	56.68		ug/L		91	70 - 130
Acetone	62.5	58.53		ug/L		94	70 - 130
Benzene	12.5	10.90		ug/L		87	70 - 130
Bromobenzene	12.5	11.48		ug/L		92	70 - 130
Bromoform	12.5	11.75		ug/L		94	70 - 130
Bromomethane	12.5	12.24		ug/L		98	70 - 130
Carbon disulfide	12.5	10.81		ug/L		87	70 - 130
Carbon tetrachloride	12.5	11.19		ug/L		90	70 - 130
Chlorobenzene	12.5	11.52		ug/L		92	70 - 130
Chlorobromomethane	12.5	11.35		ug/L		91	70 - 130 70 - 130
Chlorodibromomethane	12.3	11.18		ug/L		91	70 - 130
Chloroethane	12.5	12.01		ug/L		96	70 <sub>-</sub> 130
Chloroform	12.5	10.65		ug/L		85	70 - 130
Chloromethane	12.5	10.23		ug/L		82	70 - 130
cis-1,2-Dichloroethene	12.5	11.29		ug/L ug/L		90	70 - 130 70 - 130
cis-1,3-Dichloropropene	12.5	11.13		ug/L ug/L		89	70 <sub>-</sub> 130
Dichlorobromethane	12.5	10.59		ug/L		85	70 - 130
Dichlorodifluoromethane	12.5	9.460		ug/L ug/L		76	70 - 130 70 - 130
Ethyl ether	12.5	11.11		-		89	70 - 130 70 - 130
	12.5	11.29		ug/L		90	70 - 130
Ethylbenzene Ethylene Dibromide	12.5	10.55		ug/L		84	70 <sub>-</sub> 130
•	12.5			ug/L			
Hexachlorobutadiene		10.51		ug/L		84	70 - 130
Isopropyl ether	12.5	11.67		ug/L		93	70 <sub>-</sub> 130
Isopropylbenzene	12.5	10.73		ug/L		86	70 - 130
Methyl tert-butyl ether	12.5	11.01		ug/L		88	70 - 130
Methylene Chloride	12.5	9.393		ug/L 		75	70 - 130
m-Xylene & p-Xylene	12.5	10.92		ug/L		87	70 - 130
Naphthalene	12.5	11.39		ug/L		91	70 - 130
n-Butylbenzene	12.5	11.30		ug/L		90	70 - 130
N-Propylbenzene	12.5	10.98		ug/L		88	70 - 130
o-Xylene	12.5	10.76		ug/L		86	70 - 130
sec-Butylbenzene	12.5	10.94		ug/L		88	70 - 130
Styrene	12.5	10.91		ug/L		87	70 - 130
Tert-amyl methyl ether	12.5	11.15		ug/L		89	70 - 130
Tert-butyl ethyl ether	12.5	11.10		ug/L		89	70 - 130
tert-Butylbenzene	12.5	12.02		ug/L		96	70 - 130

TestAmerica Buffalo

## **QC Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-164048/4

**Matrix: Water** 

Analysis Batch: 164048

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Tetrachloroethene	12.5	11.74		ug/L		94	70 - 130	
Tetrahydrofuran	25.0	29.68		ug/L		119	70 - 130	
Toluene	12.5	11.21		ug/L		90	70 - 130	
trans-1,2-Dichloroethene	12.5	11.28		ug/L		90	70 - 130	
trans-1,3-Dichloropropene	12.5	10.95		ug/L		88	70 _ 130	
Trichloroethene	12.5	11.71		ug/L		94	70 - 130	
Trichlorofluoromethane	12.5	11.68		ug/L		93	70 - 130	
Vinyl chloride	12.5	10.31		ug/L		82	70 - 130	
Dibromomethane	12.5	11.26		ug/L		90	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
Toluene-d8 (Surr)	98	70 - 130
1,2-Dichloroethane-d4 (Surr)	95	70 - 130
4-Bromofluorobenzene (Surr)	102	70 - 130

Lab Sample ID: LCSD 480-164048/5

**Matrix: Water** 

Client Sample ID: Lab Con	trol Sample Dup
Pre	p Type: Total/NA

Analysis Batch: 164048									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	12.5	11.32		ug/L		91	70 - 130	1	20
1,1,1-Trichloroethane	12.5	10.74		ug/L		86	70 - 130	6	20
1,1,2,2-Tetrachloroethane	12.5	11.32		ug/L		91	70 - 130	3	20
1,1,2-Trichloroethane	12.5	10.94		ug/L		87	70 - 130	1	20
1,1-Dichloroethane	12.5	10.82		ug/L		87	70 - 130	0	20
1,1-Dichloroethene	12.5	10.51		ug/L		84	70 - 130	4	20
1,1-Dichloropropene	12.5	10.69		ug/L		86	70 - 130	3	20
1,2,3-Trichlorobenzene	12.5	10.72		ug/L		86	70 - 130	0	20
1,2,3-Trichloropropane	12.5	11.30		ug/L		90	70 - 130	4	20
1,2,4-Trichlorobenzene	12.5	11.09		ug/L		89	70 - 130	1	20
1,2,4-Trimethylbenzene	12.5	10.68		ug/L		85	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	12.5	11.16		ug/L		89	70 - 130	2	20
1,2-Dichlorobenzene	12.5	11.39		ug/L		91	70 - 130	1	20
1,2-Dichloroethane	12.5	10.87		ug/L		87	70 - 130	0	20
1,2-Dichloropropane	12.5	11.01		ug/L		88	70 - 130	1	20
1,3,5-Trimethylbenzene	12.5	10.85		ug/L		87	70 - 130	0	20
1,3-Dichlorobenzene	12.5	11.36		ug/L		91	70 - 130	1	20
1,3-Dichloropropane	12.5	10.79		ug/L		86	70 - 130	1	20
1,4-Dichlorobenzene	12.5	11.47		ug/L		92	70 - 130	1	20
1,4-Dioxane	250	203.4		ug/L		81	70 - 130	7	20
2,2-Dichloropropane	12.5	10.64		ug/L		85	70 - 130	3	20
2-Butanone (MEK)	62.5	105.6	*	ug/L		169	70 - 130	2	20
2-Chlorotoluene	12.5	11.01		ug/L		88	70 - 130	2	20
2-Hexanone	62.5	60.40		ug/L		97	70 - 130	1	20
4-Chlorotoluene	12.5	10.43		ug/L		83	70 - 130	1	20
4-Isopropyltoluene	12.5	11.38		ug/L		91	70 - 130	0	20
4-Methyl-2-pentanone (MIBK)	62.5	57.13		ug/L		91	70 - 130	1	20
Acetone	62.5	58.94		ug/L		94	70 - 130	1	20

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-164048/5

**Matrix: Water** 

Analysis Batch: 164048

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

	Spike	Spike LCSD					%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	12.5	10.58		ug/L		85	70 - 130	3	20
Bromobenzene	12.5	11.37		ug/L		91	70 - 130	1	20
Bromoform	12.5	11.79		ug/L		94	70 - 130	0	20
Bromomethane	12.5	12.34		ug/L		99	70 - 130	1	20
Carbon disulfide	12.5	10.45		ug/L		84	70 - 130	3	20
Carbon tetrachloride	12.5	10.77		ug/L		86	70 - 130	4	20
Chlorobenzene	12.5	11.44		ug/L		92	70 - 130	1	20
Chlorobromomethane	12.5	11.01		ug/L		88	70 - 130	3	20
Chlorodibromomethane	12.3	11.43		ug/L		93	70 - 130	2	20
Chloroethane	12.5	11.87		ug/L		95	70 - 130	1	20
Chloroform	12.5	10.44		ug/L		83	70 - 130	2	20
Chloromethane	12.5	9.897		ug/L		79	70 - 130	3	20
cis-1,2-Dichloroethene	12.5	11.39		ug/L		91	70 - 130	1	20
cis-1,3-Dichloropropene	12.5	10.92		ug/L		87	70 - 130	2	20
Dichlorobromomethane	12.5	10.65		ug/L		85	70 - 130	1	20
Dichlorodifluoromethane	12.5	9.206		ug/L		74	70 - 130	3	20
Ethyl ether	12.5	11.15		ug/L		89	70 - 130	0	20
Ethylbenzene	12.5	11.17		ug/L		89	70 - 130	1	20
Ethylene Dibromide	12.5	10.53		ug/L		84	70 - 130	0	20
Hexachlorobutadiene	12.5	10.38		ug/L		83	70 - 130	1	20
Isopropyl ether	12.5	11.32		ug/L		91	70 - 130	3	20
Isopropylbenzene	12.5	10.88		ug/L		87	70 - 130	1	20
Methyl tert-butyl ether	12.5	10.85		ug/L		87	70 - 130	1	20
Methylene Chloride	12.5	9.141		ug/L		73	70 - 130	3	20
m-Xylene & p-Xylene	12.5	10.68		ug/L		85	70 - 130	2	20
Naphthalene	12.5	11.29		ug/L		90	70 - 130	1	20
n-Butylbenzene	12.5	11.10		ug/L		89	70 - 130	2	20
N-Propylbenzene	12.5	11.20		ug/L		90	70 - 130	2	20
o-Xylene	12.5	10.36		ug/L		83	70 - 130	4	20
sec-Butylbenzene	12.5	10.74		ug/L		86	70 - 130	2	20
Styrene	12.5	10.98		ug/L		88	70 - 130	1	20
Tert-amyl methyl ether	12.5	11.25		ug/L		90	70 - 130	1	20
Tert-butyl ethyl ether	12.5	10.84		ug/L		87	70 - 130	2	20
tert-Butylbenzene	12.5	11.83		ug/L		95	70 - 130	2	20
Tetrachloroethene	12.5	11.39		ug/L		91	70 - 130	3	20
Tetrahydrofuran	25.0	29.64		ug/L		119	70 - 130	0	20
Toluene	12.5	10.95		ug/L		88	70 - 130	2	20
trans-1,2-Dichloroethene	12.5	10.76		ug/L		86	70 - 130	5	20
trans-1,3-Dichloropropene	12.5	10.93		ug/L		87	70 - 130	0	20
Trichloroethene	12.5	11.16		ug/L		89	70 - 130	5	20
Trichlorofluoromethane	12.5	10.95		ug/L		88	70 - 130	6	20
Vinyl chloride	12.5	10.00		ug/L		80	70 - 130	3	20
Dibromomethane	12.5	11.35		ug/L		91	70 - 130	1	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

#### Method: MAVPH - Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 480-163628/3

**Matrix: Water** 

C9-C10 Aromatics

Analyte

Analysis Batch: 163628

C5-C8 Aliphatics (unadjusted)

C9-C12 Aliphatics (unadjusted)

Client Sample ID: Method Blank Prep Type: Total/NA

мв мв RL Result Qualifier MDL Unit D Prepared Analyzed Dil Fac <5.00 5.00 1.50 ug/L 01/29/14 09:31 01/29/14 09:31 <5.00 5.00 0.500 ug/L 01/29/14 09:31 <5.00 5.00 1.50 ug/L

MR MR Qualifier Limits Dil Fac Surrogate %Recovery Prepared Analyzed 2,5-Dibromotoluene (fid) 87 70 - 130 01/29/14 09:31 2,5-Dibromotoluene (pid) 91 70 - 130 01/29/14 09:31

Lab Sample ID: LCS 480-163628/4

Analysis Batch: 163628

**Matrix: Water** 

	Spike	LUS	LUS				70Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
C5-C8 Aliphatics (unadjusted)	15.0	15.21		ug/L	_	101	70 - 130	
C9-C10 Aromatics	5.00	5.145		ug/L		103	70 - 130	
C9-C12 Aliphatics (unadjusted)	15.0	15.04		ug/L		100	70 - 130	

Chiles

LCS LCS %Recovery Qualifier Surrogate Limits 2,5-Dibromotoluene (fid) 70 - 130 88 2,5-Dibromotoluene (pid) 92 70 - 130

Lab Sample ID: LCSD 480-163628/5

**Matrix: Water** 

Analysis Batch: 163628

Client Sample ID: Lab	Control Sample Dup
	Prep Type: Total/NA

Client Sample ID: Lab Control Sample

0/ Baa

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C5-C8 Aliphatics (unadjusted)	15.0	14.97		ug/L		100	70 - 130	2	25
C9-C10 Aromatics	5.00	5.112		ug/L		102	70 - 130	1	25
C9-C12 Aliphatics (unadjusted)	15.0	14.94		ug/L		100	70 - 130	1	25

LCSD LCSD Surrogate %Recovery Qualifier Limits 2,5-Dibromotoluene (fid) 88 70 - 130 2,5-Dibromotoluene (pid) 91 70 - 130

#### Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC)

мв мв

Lab Sample ID: MB 480-163794/1-B Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Analysis Batch: 164006 Prep Batch: 163794

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Acenaphthene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Acenaphthylene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Anthracene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Benzo[a]anthracene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Benzo[a]pyrene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: MB 480-163794/1-B Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA **Prep Batch: 163794** 

Analysis Batch: 164006

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Benzo[g,h,i]perylene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Benzo[k]fluoranthene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Chrysene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Dibenz(a,h)anthracene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Fluoranthene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Fluorene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Indeno[1,2,3-cd]pyrene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Naphthalene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Phenanthrene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
Pyrene	<10.0		10.0	2.00	ug/L		01/30/14 05:48	01/31/14 08:56	1
C11-C22 Aromatics (unadjusted)	17.44	J	50.0	10.0	ug/L		01/30/14 05:48	01/31/14 08:56	1
C19-C36 Aliphatics	11.55	J	50.0	10.0	ug/L		01/30/14 05:48	01/31/14 08:56	1
C9-C18 Aliphatics	<50.0		50.0	10.0	ug/L		01/30/14 05:48	01/31/14 08:56	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 70 40 - 140 01/30/14 05:48 01/31/14 08:56 1-Chlorooctadecane 2-Bromonaphthalene 81 40 - 140 01/30/14 05:48 01/31/14 08:56 2-Fluorobiphenyl 85 40 - 140 01/30/14 05:48 01/31/14 08:56 74 40 - 140 01/30/14 05:48 01/31/14 08:56 o-Terphenyl

Lab Sample ID: LCS 480-163794/2-B Client Sample ID: Lab Control Sample

Analysis Batch: 164006

**Matrix: Water** Prep Type: Total/NA Prep Batch: 163794

Snike	LCS	LCS				%Rec. 163/94
			Unit	D	%Rec	Limits
50.0	32.15		ug/L		64	40 - 140
50.0	34.72		ug/L		69	40 - 140
50.0	35.14		ug/L		70	40 - 140
50.0	40.18		ug/L		80	40 - 140
50.0	40.67		ug/L		81	40 - 140
50.0	39.80		ug/L		80	40 - 140
50.0	40.39		ug/L		81	40 - 140
50.0	43.72		ug/L		87	40 - 140
50.0	40.37		ug/L		81	40 - 140
50.0	41.22		ug/L		82	40 - 140
50.0	43.53		ug/L		87	40 - 140
50.0	40.54		ug/L		81	40 - 140
50.0	37.77		ug/L		76	40 - 140
50.0	43.31		ug/L		87	40 - 140
50.0	30.19		ug/L		60	40 - 140
50.0	40.48		ug/L		81	40 - 140
50.0	41.46		ug/L		83	40 - 140
850	670.2		ug/L		79	40 - 140
400	356.0		ug/L		89	40 - 140
300	217.6		ug/L		73	40 - 140
	50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 400	Added         Result           50.0         32.15           50.0         34.72           50.0         35.14           50.0         40.18           50.0         40.67           50.0         39.80           50.0         40.39           50.0         40.37           50.0         40.37           50.0         43.53           50.0         40.54           50.0         37.77           50.0         43.31           50.0         30.19           50.0         40.48           50.0         41.46           850         670.2           400         356.0	Added         Result         Qualifier           50.0         32.15           50.0         34.72           50.0         35.14           50.0         40.18           50.0         40.67           50.0         39.80           50.0         40.39           50.0         43.72           50.0         40.37           50.0         43.53           50.0         43.53           50.0         40.54           50.0         37.77           50.0         43.31           50.0         30.19           50.0         40.48           50.0         41.46           850         670.2           400         356.0	Added         Result         Qualifier         Unit           50.0         32.15         ug/L           50.0         34.72         ug/L           50.0         35.14         ug/L           50.0         40.18         ug/L           50.0         40.67         ug/L           50.0         39.80         ug/L           50.0         40.39         ug/L           50.0         43.72         ug/L           50.0         40.37         ug/L           50.0         43.53         ug/L           50.0         43.53         ug/L           50.0         37.77         ug/L           50.0         43.31         ug/L           50.0         30.19         ug/L           50.0         40.48         ug/L           50.0         41.46         ug/L           50.0         41.46         ug/L           400         356.0         ug/L	Added         Result         Qualifier         Unit         D           50.0         32.15         ug/L         ug/L           50.0         34.72         ug/L         ug/L           50.0         35.14         ug/L         ug/L           50.0         40.18         ug/L         ug/L           50.0         40.67         ug/L         ug/L           50.0         39.80         ug/L         ug/L           50.0         40.39         ug/L         ug/L           50.0         43.72         ug/L         ug/L           50.0         40.37         ug/L         ug/L           50.0         43.53         ug/L           50.0         43.53         ug/L           50.0         37.77         ug/L           50.0         43.31         ug/L           50.0         30.19         ug/L           50.0         40.48         ug/L           50.0         41.46         ug/L           850         670.2         ug/L           400         356.0         ug/L	Added         Result         Qualifier         Unit         D         %Rec           50.0         32.15         ug/L         64           50.0         34.72         ug/L         69           50.0         35.14         ug/L         80           50.0         40.18         ug/L         81           50.0         40.67         ug/L         81           50.0         39.80         ug/L         81           50.0         40.39         ug/L         81           50.0         43.72         ug/L         87           50.0         40.37         ug/L         82           50.0         43.53         ug/L         82           50.0         43.53         ug/L         81           50.0         37.77         ug/L         81           50.0         43.31         ug/L         87           50.0         43.31         ug/L         87           50.0         40.48         ug/L         81           50.0         40.48         ug/L         83           850         670.2         ug/L         79           400         356.0         ug/L

TestAmerica Buffalo

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: MA-EPH - Massachusetts - Extractable Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCS 480-163794/2-B

**Matrix: Water** 

Analysis Batch: 164006

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 163794** 

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	80		40 - 140
2-Bromonaphthalene	74		40 - 140
2-Fluorobiphenyl	82		40 - 140
o-Terphenyl	73		40 - 140

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

**Prep Batch: 163794** 

Lab Sample ID: LCSD 480-163794/3-B **Matrix: Water** 

Analysis Batch: 164006

,									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2-Methylnaphthalene	50.0	32.33		ug/L		65	40 - 140	1	25
Acenaphthene	50.0	35.65		ug/L		71	40 - 140	3	25
Acenaphthylene	50.0	38.75		ug/L		77	40 - 140	10	25
Anthracene	50.0	43.96		ug/L		88	40 - 140	9	25
Benzo[a]anthracene	50.0	42.72		ug/L		85	40 - 140	5	25
Benzo[a]pyrene	50.0	41.06		ug/L		82	40 - 140	3	25
Benzo[b]fluoranthene	50.0	41.60		ug/L		83	40 - 140	3	25
Benzo[g,h,i]perylene	50.0	45.09		ug/L		90	40 - 140	3	25
Benzo[k]fluoranthene	50.0	42.56		ug/L		85	40 - 140	5	25
Chrysene	50.0	43.09		ug/L		86	40 - 140	4	25
Dibenz(a,h)anthracene	50.0	44.19		ug/L		88	40 - 140	2	25
Fluoranthene	50.0	43.94		ug/L		88	40 - 140	8	25
Fluorene	50.0	41.77		ug/L		84	40 - 140	10	25
Indeno[1,2,3-cd]pyrene	50.0	44.83		ug/L		90	40 - 140	3	25
Naphthalene	50.0	30.44		ug/L		61	40 - 140	1	25
Phenanthrene	50.0	44.52		ug/L		89	40 - 140	9	25
Pyrene	50.0	44.82		ug/L		90	40 - 140	8	25
C11-C22 Aromatics (unadjusted)	850	732.4		ug/L		86	40 - 140	9	25
C19-C36 Aliphatics	400	396.2		ug/L		99	40 - 140	11	25
C9-C18 Aliphatics	300	255.6		ug/L		85	40 - 140	16	25

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctadecane	89		40 - 140
2-Bromonaphthalene	72		40 - 140
2-Fluorobiphenyl	84		40 - 140
o-Terphenyl	78		40 - 140

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-163064/15-B

**Matrix: Water** 

Analysis Batch: 164031

Client Sample ID: Method Blank **Prep Type: Dissolved** 

**Prep Batch: 163657** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<1.70		5.00	1.70	ug/L		01/29/14 10:45	01/30/14 19:21	1
Arsenic	<5.55		10.0	5.55	ug/L		01/29/14 10:45	01/30/14 19:21	1
Barium	<0.700		10.0	0.700	ug/L		01/29/14 10:45	01/30/14 19:21	1

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: MB 480-163064/15-B

**Matrix: Water** 

**Analysis Batch: 164031** 

Client Sample ID: Method Blank **Prep Type: Dissolved** 

**Prep Batch: 163657** 

		IVID	o IVID									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
	Beryllium	<0.300		1.00	0.300	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	Cadmium	<0.500		1.00	0.500	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	Chromium	<1.00		5.00	1.00	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	Nickel	<1.26		10.0	1.26	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	Thallium	<10.2		20.0	10.2	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	Lead	<3.00		5.00	3.00	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	Selenium	<8.70		10.0	8.70	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	Antimony	<6.79		6.00	6.79	ug/L		01/29/14 10:45	01/30/14 19:21	1		
	<u> </u>											

MR MR

Lab Sample ID: MB 480-163064/15-B

**Matrix: Water** 

Analysis Batch: 164246

Client Sample ID: Method Blank **Prep Type: Dissolved** 

**Prep Batch: 163657** 

мв мв Result Qualifier RL MDL Unit D Prepared Dil Fac Analyte Analyzed Vanadium <1.50 10.0 1.50 ug/L 01/29/14 10:45 01/31/14 16:42 50.0 01/29/14 10:45 01/31/14 16:42 Zinc 1.840 J 1.50 ug/L

Lab Sample ID: LCS 480-163064/16-B

**Matrix: Water** 

Analysis Batch: 164031

Client Sample ID: Lab Control Sample

**Prep Type: Dissolved** 

**Prep Batch: 163657** 

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits 50.0 Silver 49.09 ug/L 98 80 - 120 200 222.5 Arsenic ug/L 111 80 - 120 Barium 200 200.0 100 80 - 120 ug/L 200 215.9 108 Beryllium ug/L 80 - 120 Cadmium 200 208.1 104 80 - 120 ug/L Chromium 200 194.3 ug/L 97 80 - 120 Nickel 200 209.2 ug/L 105 80 - 120 Thallium 200 200.1 ug/L 100 80 - 120 200 196.5 ug/L 98 80 - 120 Lead Selenium 200 217.8 ug/L 109 80 - 120 Antimony 200 194.5 ug/L 80 - 120 97

Lab Sample ID: LCS 480-163064/16-B

**Matrix: Water** 

Analysis Batch: 164246

Client	<b>Sample</b>	ID: Lab	Control	Sample
--------	---------------	---------	---------	--------

**Prep Type: Dissolved Prep Batch: 163657** 

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Vanadium 200 206.3 ug/L 103 80 - 120200 200.7 ug/L 100 80 - 120

Lab Sample ID: LCSD 480-163064/23-B

**Matrix: Water** 

Analysis Batch: 164031

Client Sample ID: Lab Control Sample Dup

**Prep Type: Dissolved Prep Batch: 163657** 

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Silver 50.0 47.98 96 20 ug/L 80 - 120 13 200 220.3 80 - 120 Arsenic ug/L 110 20

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 480-163064/23-B Matrix: Water	Client Sample ID: Lab Control Sample Dup Prep Type: Dissolved								
Analysis Batch: 164031							Prep E		
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	200	197.1		ug/L		99	80 - 120	6	20
Beryllium	200	214.3		ug/L		107	80 - 120	2	20
Cadmium	200	204.7		ug/L		102	80 - 120	5	20
Chromium	200	190.7		ug/L		95	80 - 120	6	20
Nickel	200	208.8		ug/L		104	80 - 120	3	20
Thallium	200	198.2		ug/L		99	80 - 120	8	20
Lead	200	195.7		ug/L		98	80 - 120	8	20
Selenium	200	215.2		ug/L		108	80 - 120	2	20
Antimony	200	191.8		ua/L		96	80 - 120	8	20

Lab Sample ID: LCSD 480-163064/23-B **Client Sample ID: Lab Control Sample Dup Matrix: Water Prep Type: Dissolved** Analysis Batch: 164246 **Prep Batch: 163657** LCSD LCSD Spike %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits Limit 200 Vanadium 205.9 103 80 - 120 0 20 ug/L 200 203.9 ug/L 102 80 - 120

Lab Sample ID: 480-53903-5 MS							Clier	it Sample ID: MW-4R MS
Matrix: Water								<b>Prep Type: Dissolved</b>
Analysis Batch: 164031								<b>Prep Batch: 163657</b>
	Sample	Sample	Spike	MS	MS			%Rec.
Amalusta	Desuit	Ouglities	A al al a al	Deculé	Ouglifier	11-44	 0/ Daa	Limite

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silver	<1.70		50.0	49.90		ug/L		100	75 - 125	
Arsenic	<5.55		200	230.0		ug/L		115	75 - 125	
Barium	273		200	504.8		ug/L		116	75 - 125	
Beryllium	<0.300		200	212.5		ug/L		106	75 <sub>-</sub> 125	
Cadmium	<0.500		200	208.5		ug/L		104	75 - 125	
Chromium	<1.00		200	195.0		ug/L		98	75 - 125	
Nickel	4.75	J	200	216.3		ug/L		106	75 - 125	
Thallium	<10.2		200	198.8		ug/L		99	75 - 125	
Lead	<3.00		200	203.0		ug/L		101	75 - 125	
Selenium	<8.70		200	222.9		ug/L		111	75 <sub>-</sub> 125	
Antimony	<6.79		200	198.5		ug/L		99	75 - 125	

Lab Sample ID: 480-53903-5 MS **Matrix: Water** 

Analysis Batch: 164246

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Vanadium	<1.50		200	209.7		ug/L		105	75 - 125	 -
Zinc	85.6	В	200	284.4		ug/L		99	75 <sub>-</sub> 125	

Lab Sample ID: 480-53903-5 MSD Client Sample ID: MW-4R MSD **Matrix: Water** 

Analysis Batch: 164031									Prep	Batch: 1	63657
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	<1.70		50.0	50.53		ug/L		101	75 - 125	1	20

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**Prep Type: Dissolved** 

Client Sample ID: MW-4R MS

**Prep Type: Dissolved** 

**Prep Batch: 163657** 

Client Sample ID: MW-4R MSD

Client Sample ID: Method Blank

Analyzed

01/29/14 12:02

**Client Sample ID: Lab Control Sample** 

%Rec.

Limits

80 - 120

**Prep Type: Dissolved** 

**Prep Type: Dissolved** 

**Prep Batch: 163625** 

**Prep Batch: 163625** 

Dil Fac

**Prep Type: Dissolved** 

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Method: 6010	- Metals	(ICP)	(Continued)

Lab Sample ID: 480-53903-5 MSD Client Sample ID: MW-4R MSD **Matrix: Water Prep Type: Dissolved Analysis Batch: 164031 Prep Batch: 163657** Sample Sample Spike MSD MSD **RPD** Analyte Result Qualifier Added Result Qualifier Limits RPD Limit Unit %Rec Arsenic 200 230.9 75 - 125 <5.55 ug/L 115 0 20 Barium 273 200 504.0 ug/L 116 75 - 125 0 20 Beryllium 200 212.1 < 0.300 ug/L 106 75 - 125 0 20 Cadmium <0.500 200 208.5 ug/L 104 75 - 125 20 Chromium 200 194.0 97 75 - 125 20 <1.00 ug/L Nickel 4.75 200 215.7 ug/L 105 75 - 125 20 Thallium 198.5 <10.2 200 ug/L 99 75 - 125 20 0 Lead <3.00 200 200.9 ug/L 100 75 - 125 20 Selenium <8.70 200 226.4 ug/L 113 75 - 125 20 Antimony <6.79 200 200.2 ug/L 100 75 - 125 20

Lab Sample ID: 480-53903-5 MSD

**Matrix: Water** 

Analysis Batch: 164246

Analysis Batch: 164246									Prep	Batch: 1	63657
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Vanadium	<1.50		200	213.0		ug/L		107	75 - 125	2	20
Zinc	85.6	В	200	303.6		ug/L		109	75 <sub>-</sub> 125	7	20

RL

0.200

Spike

Added

6.67

#### Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-163064/19-B

**Matrix: Water** 

**Matrix: Water** 

Mercury

Analyte Mercury

Analyte

Mercury

**Analysis Batch: 163721** 

	MB	MB
Analyte	Result	Qualifier

Mercury	<0.120	
: Lah Sample ID: LCS 480-163064/20	LR.	

Analysis Batch: 163721

Allulyolo	Jutoii.	100121	
Analyte			

Lab Sample ID: LCSD 480-163064/21-B
Matrix: Water

Analysis Batch: 163721

Lab Sample ID: 480-53903-5 MS

**Matrix: Water** 

Analysis Batch: 163721

Client Sample ID: Lab Contr	ol Sample Dup
Prep T	ype: Dissolved

D

						Prep I	RPD	63625	3625	
Spike	LCSD	LCSD				%Rec.		RPD		
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
6.67	6.200		ug/L		93	80 - 120	4	20		

D

Unit

ug/L

Prepared

01/29/14 07:45

%Rec

89

Client Sample ID: MW-4R MS **Prep Type: Dissolved Prep Batch: 163625** %Rec.

Spike MS MS Sample Sample Result Qualifier Added Result Qualifier Unit %Rec <0.120 6.67 6.533 98 ug/L 75 - 125

MDL Unit

0.120 ug/L

LCS LCS

5.950

Result Qualifier

# **QC Sample Results**

Client: Woodard & Curran Inc
Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 480-53903-5 MSD

Matrix: Water

Prep Type: Dissolved
Analysis Batch: 163721

Prep Batch: 163625

Sample Sample Spike MSD MSD %Rec. Analyte Result Qualifier Added Result Qualifier Limits RPD Limit Unit %Rec 2 Mercury <0.120 6.67 6.383 ug/L 96 75 - 125 20

4

5

6

Ω

9

11

16

14

113

# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

#### **GC/MS VOA**

Analysis Batch: 163849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Total/NA	Water	8260C	
480-53903-2	MW-1R	Total/NA	Water	8260C	
480-53903-5	MW-4R	Total/NA	Water	8260C	
480-53903-6	MW-2R	Total/NA	Water	8260C	
480-53903-7	WCMW-6	Total/NA	Water	8260C	
480-53903-8	WCMW-5	Total/NA	Water	8260C	
480-53903-9	WCMW-2	Total/NA	Water	8260C	
LCS 480-163849/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-163849/6	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-163849/8	Method Blank	Total/NA	Water	8260C	

#### Analysis Batch: 163954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-3	WCMW-7	Total/NA	Water	8260C	_
480-53903-10	WCMW-4	Total/NA	Water	8260C	
480-53903-11	WCMW-1	Total/NA	Water	8260C	
480-53903-12	WCMW-3	Total/NA	Water	8260C	
480-53903-13	MW-3R	Total/NA	Water	8260C	
480-53903-14	WCMW-9	Total/NA	Water	8260C	
480-53903-15	TB-01272014	Total/NA	Water	8260C	
480-53903-16	WCMW-10	Total/NA	Water	8260C	
LCS 480-163954/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-163954/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-163954/7	Method Blank	Total/NA	Water	8260C	

#### Analysis Batch: 164048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-17	WCMW-8	Total/NA	Water	8260C	
LCS 480-164048/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-164048/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-164048/7	Method Blank	Total/NA	Water	8260C	

#### **GC VOA**

#### Analysis Batch: 163628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Total/NA	Water	MAVPH	
480-53903-2	MW-1R	Total/NA	Water	MAVPH	
480-53903-3	WCMW-7	Total/NA	Water	MAVPH	
480-53903-5	MW-4R	Total/NA	Water	MAVPH	
480-53903-6	MW-2R	Total/NA	Water	MAVPH	
480-53903-7	WCMW-6	Total/NA	Water	MAVPH	
480-53903-8	WCMW-5	Total/NA	Water	MAVPH	
480-53903-9	WCMW-2	Total/NA	Water	MAVPH	
480-53903-10	WCMW-4	Total/NA	Water	MAVPH	
480-53903-11	WCMW-1	Total/NA	Water	MAVPH	
480-53903-12	WCMW-3	Total/NA	Water	MAVPH	
480-53903-13	MW-3R	Total/NA	Water	MAVPH	
480-53903-14	WCMW-9	Total/NA	Water	MAVPH	
480-53903-16	WCMW-10	Total/NA	Water	MAVPH	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

GC VOA (Continued)

## Analysis Batch: 163628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-17	WCMW-8	Total/NA	Water	MAVPH	
LCS 480-163628/4	Lab Control Sample	Total/NA	Water	MAVPH	
LCSD 480-163628/5	Lab Control Sample Dup	Total/NA	Water	MAVPH	
MB 480-163628/3	Method Blank	Total/NA	Water	MAVPH	

#### Analysis Batch: 163716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Total/NA	Water	MA VPH	
480-53903-2	MW-1R	Total/NA	Water	MA VPH	
480-53903-3	WCMW-7	Total/NA	Water	MA VPH	
480-53903-5	MW-4R	Total/NA	Water	MA VPH	
480-53903-6	MW-2R	Total/NA	Water	MA VPH	
480-53903-7	WCMW-6	Total/NA	Water	MA VPH	
480-53903-8	WCMW-5	Total/NA	Water	MA VPH	
480-53903-9	WCMW-2	Total/NA	Water	MA VPH	
480-53903-10	WCMW-4	Total/NA	Water	MA VPH	
480-53903-11	WCMW-1	Total/NA	Water	MA VPH	
480-53903-12	WCMW-3	Total/NA	Water	MA VPH	
480-53903-13	MW-3R	Total/NA	Water	MA VPH	
480-53903-14	WCMW-9	Total/NA	Water	MA VPH	
480-53903-16	WCMW-10	Total/NA	Water	MA VPH	
480-53903-17	WCMW-8	Total/NA	Water	MA VPH	

#### GC Semi VOA

#### **Prep Batch: 163794**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-53903-1	WCMW-11	Total/NA	Water	3510C	
480-53903-2	MW-1R	Total/NA	Water	3510C	
480-53903-3	WCMW-7	Total/NA	Water	3510C	
480-53903-4	WCMW-907	Total/NA	Water	3510C	
480-53903-5	MW-4R	Total/NA	Water	3510C	
480-53903-6	MW-2R	Total/NA	Water	3510C	
480-53903-7	WCMW-6	Total/NA	Water	3510C	
480-53903-8	WCMW-5	Total/NA	Water	3510C	
480-53903-9	WCMW-2	Total/NA	Water	3510C	
480-53903-10	WCMW-4	Total/NA	Water	3510C	
480-53903-11	WCMW-1	Total/NA	Water	3510C	
480-53903-12	WCMW-3	Total/NA	Water	3510C	
480-53903-13	MW-3R	Total/NA	Water	3510C	
480-53903-14	WCMW-9	Total/NA	Water	3510C	
480-53903-16	WCMW-10	Total/NA	Water	3510C	
480-53903-17	WCMW-8	Total/NA	Water	3510C	
LCS 480-163794/2-B	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-163794/3-B	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-163794/1-B	Method Blank	Total/NA	Water	3510C	

#### Fraction Batch: 163830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Total/NA	Water	MA EPH Frac	163794

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## GC Semi VOA (Continued)

#### Fraction Batch: 163830 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-2	MW-1R	Total/NA	Water	MA EPH Frac	163794
480-53903-3	WCMW-7	Total/NA	Water	MA EPH Frac	163794
480-53903-4	WCMW-907	Total/NA	Water	MA EPH Frac	163794
480-53903-5	MW-4R	Total/NA	Water	MA EPH Frac	163794
480-53903-6	MW-2R	Total/NA	Water	MA EPH Frac	163794
480-53903-7	WCMW-6	Total/NA	Water	MA EPH Frac	163794
480-53903-8	WCMW-5	Total/NA	Water	MA EPH Frac	163794
480-53903-9	WCMW-2	Total/NA	Water	MA EPH Frac	163794
480-53903-10	WCMW-4	Total/NA	Water	MA EPH Frac	163794
480-53903-11	WCMW-1	Total/NA	Water	MA EPH Frac	163794
480-53903-12	WCMW-3	Total/NA	Water	MA EPH Frac	163794
480-53903-13	MW-3R	Total/NA	Water	MA EPH Frac	163794
480-53903-14	WCMW-9	Total/NA	Water	MA EPH Frac	163794
480-53903-16	WCMW-10	Total/NA	Water	MA EPH Frac	163794
480-53903-17	WCMW-8	Total/NA	Water	MA EPH Frac	163794
LCS 480-163794/2-B	Lab Control Sample	Total/NA	Water	MA EPH Frac	163794
LCSD 480-163794/3-B	Lab Control Sample Dup	Total/NA	Water	MA EPH Frac	163794
MB 480-163794/1-B	Method Blank	Total/NA	Water	MA EPH Frac	163794

#### Analysis Batch: 164006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Total/NA	Water	MA-EPH	163830
480-53903-2	MW-1R	Total/NA	Water	MA-EPH	163830
480-53903-3	WCMW-7	Total/NA	Water	MA-EPH	163830
480-53903-4	WCMW-907	Total/NA	Water	MA-EPH	163830
480-53903-5	MW-4R	Total/NA	Water	MA-EPH	163830
480-53903-6	MW-2R	Total/NA	Water	MA-EPH	163830
480-53903-7	WCMW-6	Total/NA	Water	MA-EPH	163830
480-53903-8	WCMW-5	Total/NA	Water	MA-EPH	163830
480-53903-9	WCMW-2	Total/NA	Water	MA-EPH	163830
480-53903-10	WCMW-4	Total/NA	Water	MA-EPH	163830
480-53903-11	WCMW-1	Total/NA	Water	MA-EPH	163830
480-53903-12	WCMW-3	Total/NA	Water	MA-EPH	163830
480-53903-13	MW-3R	Total/NA	Water	MA-EPH	163830
480-53903-14	WCMW-9	Total/NA	Water	MA-EPH	163830
480-53903-16	WCMW-10	Total/NA	Water	MA-EPH	163830
480-53903-17	WCMW-8	Total/NA	Water	MA-EPH	163830
LCS 480-163794/2-B	Lab Control Sample	Total/NA	Water	MA-EPH	163830
LCSD 480-163794/3-B	Lab Control Sample Dup	Total/NA	Water	MA-EPH	163830
MB 480-163794/1-B	Method Blank	Total/NA	Water	MA-EPH	163830

#### Analysis Batch: 164270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Total/NA	Water	MA-EPH	
480-53903-2	MW-1R	Total/NA	Water	MA-EPH	
480-53903-3	WCMW-7	Total/NA	Water	MA-EPH	
480-53903-4	WCMW-907	Total/NA	Water	MA-EPH	
480-53903-5	MW-4R	Total/NA	Water	MA-EPH	
480-53903-6	MW-2R	Total/NA	Water	MA-EPH	
480-53903-7	WCMW-6	Total/NA	Water	MA-EPH	
480-53903-8	WCMW-5	Total/NA	Water	MA-EPH	

TestAmerica Buffalo

# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

## GC Semi VOA (Continued)

## Analysis Batch: 164270 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-9	WCMW-2	Total/NA	Water	MA-EPH	
480-53903-10	WCMW-4	Total/NA	Water	MA-EPH	
480-53903-11	WCMW-1	Total/NA	Water	MA-EPH	
480-53903-12	WCMW-3	Total/NA	Water	MA-EPH	
480-53903-13	MW-3R	Total/NA	Water	MA-EPH	
480-53903-14	WCMW-9	Total/NA	Water	MA-EPH	
480-53903-16	WCMW-10	Total/NA	Water	MA-EPH	
480-53903-17	WCMW-8	Total/NA	Water	MA-EPH	

#### **Metals**

#### Filtration Batch: 163064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-163064/16-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 480-163064/20-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-163064/21-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
LCSD 480-163064/23-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-163064/15-B	Method Blank	Dissolved	Water	FILTRATION	
MB 480-163064/19-B	Method Blank	Dissolved	Water	FILTRATION	

#### **Prep Batch: 163625**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Dissolved	Water	7470A	<u> </u>
480-53903-2	MW-1R	Dissolved	Water	7470A	
480-53903-3	WCMW-7	Dissolved	Water	7470A	
480-53903-4	WCMW-907	Dissolved	Water	7470A	
480-53903-5	MW-4R	Dissolved	Water	7470A	
480-53903-5 MS	MW-4R MS	Dissolved	Water	7470A	
480-53903-5 MSD	MW-4R MSD	Dissolved	Water	7470A	
480-53903-6	MW-2R	Dissolved	Water	7470A	
480-53903-7	WCMW-6	Dissolved	Water	7470A	
480-53903-8	WCMW-5	Dissolved	Water	7470A	
480-53903-9	WCMW-2	Dissolved	Water	7470A	
480-53903-10	WCMW-4	Dissolved	Water	7470A	
480-53903-11	WCMW-1	Dissolved	Water	7470A	
480-53903-12	WCMW-3	Dissolved	Water	7470A	
480-53903-13	MW-3R	Dissolved	Water	7470A	
480-53903-14	WCMW-9	Dissolved	Water	7470A	
480-53903-16	WCMW-10	Dissolved	Water	7470A	
480-53903-17	WCMW-8	Dissolved	Water	7470A	
LCS 480-163064/20-B	Lab Control Sample	Dissolved	Water	7470A	163064
LCSD 480-163064/21-B	Lab Control Sample Dup	Dissolved	Water	7470A	163064
MB 480-163064/19-B	Method Blank	Dissolved	Water	7470A	163064

#### **Prep Batch: 163657**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Dissolved	Water	3005A	
480-53903-2	MW-1R	Dissolved	Water	3005A	
480-53903-3	WCMW-7	Dissolved	Water	3005A	
480-53903-4	WCMW-907	Dissolved	Water	3005A	

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## **Metals (Continued)**

## Prep Batch: 163657 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-5	MW-4R	Dissolved	Water	3005A	
480-53903-5 MS	MW-4R MS	Dissolved	Water	3005A	
480-53903-5 MSD	MW-4R MSD	Dissolved	Water	3005A	
480-53903-6	MW-2R	Dissolved	Water	3005A	
480-53903-7	WCMW-6	Dissolved	Water	3005A	
480-53903-8	WCMW-5	Dissolved	Water	3005A	
480-53903-9	WCMW-2	Dissolved	Water	3005A	
480-53903-10	WCMW-4	Dissolved	Water	3005A	
480-53903-11	WCMW-1	Dissolved	Water	3005A	
480-53903-12	WCMW-3	Dissolved	Water	3005A	
480-53903-13	MW-3R	Dissolved	Water	3005A	
480-53903-14	WCMW-9	Dissolved	Water	3005A	
480-53903-16	WCMW-10	Dissolved	Water	3005A	
480-53903-17	WCMW-8	Dissolved	Water	3005A	
LCS 480-163064/16-B	Lab Control Sample	Dissolved	Water	3005A	163064
LCSD 480-163064/23-B	Lab Control Sample Dup	Dissolved	Water	3005A	163064
MB 480-163064/15-B	Method Blank	Dissolved	Water	3005A	163064

#### Analysis Batch: 163721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-53903-1	WCMW-11	Dissolved	Water	7470A	163625
480-53903-2	MW-1R	Dissolved	Water	7470A	163625
180-53903-3	WCMW-7	Dissolved	Water	7470A	163625
180-53903-4	WCMW-907	Dissolved	Water	7470A	163625
180-53903-5	MW-4R	Dissolved	Water	7470A	163625
480-53903-5 MS	MW-4R MS	Dissolved	Water	7470A	163625
80-53903-5 MSD	MW-4R MSD	Dissolved	Water	7470A	163625
180-53903-6	MW-2R	Dissolved	Water	7470A	163625
180-53903-7	WCMW-6	Dissolved	Water	7470A	163625
80-53903-8	WCMW-5	Dissolved	Water	7470A	163625
80-53903-9	WCMW-2	Dissolved	Water	7470A	163625
80-53903-10	WCMW-4	Dissolved	Water	7470A	163625
80-53903-11	WCMW-1	Dissolved	Water	7470A	163625
80-53903-12	WCMW-3	Dissolved	Water	7470A	163625
80-53903-13	MW-3R	Dissolved	Water	7470A	163625
80-53903-14	WCMW-9	Dissolved	Water	7470A	163625
180-53903-16	WCMW-10	Dissolved	Water	7470A	163625
180-53903-17	WCMW-8	Dissolved	Water	7470A	163625
.CS 480-163064/20-B	Lab Control Sample	Dissolved	Water	7470A	163625
.CSD 480-163064/21-B	Lab Control Sample Dup	Dissolved	Water	7470A	163625
MB 480-163064/19-B	Method Blank	Dissolved	Water	7470A	163625

#### Analysis Batch: 164031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Dissolved	Water	6010	163657
480-53903-2	MW-1R	Dissolved	Water	6010	163657
480-53903-3	WCMW-7	Dissolved	Water	6010	163657
480-53903-4	WCMW-907	Dissolved	Water	6010	163657
480-53903-5	MW-4R	Dissolved	Water	6010	163657
480-53903-5 MS	MW-4R MS	Dissolved	Water	6010	163657
480-53903-5 MSD	MW-4R MSD	Dissolved	Water	6010	163657

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# **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

## **Metals (Continued)**

## Analysis Batch: 164031 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-6	MW-2R	Dissolved	Water	6010	163657
480-53903-7	WCMW-6	Dissolved	Water	6010	163657
480-53903-8	WCMW-5	Dissolved	Water	6010	163657
480-53903-9	WCMW-2	Dissolved	Water	6010	163657
480-53903-10	WCMW-4	Dissolved	Water	6010	163657
480-53903-11	WCMW-1	Dissolved	Water	6010	163657
480-53903-12	WCMW-3	Dissolved	Water	6010	163657
480-53903-13	MW-3R	Dissolved	Water	6010	163657
480-53903-14	WCMW-9	Dissolved	Water	6010	163657
480-53903-16	WCMW-10	Dissolved	Water	6010	163657
480-53903-17	WCMW-8	Dissolved	Water	6010	163657
LCS 480-163064/16-B	Lab Control Sample	Dissolved	Water	6010	163657
LCSD 480-163064/23-B	Lab Control Sample Dup	Dissolved	Water	6010	163657
MB 480-163064/15-B	Method Blank	Dissolved	Water	6010	163657

#### Analysis Batch: 164246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53903-1	WCMW-11	Dissolved	Water	6010	163657
480-53903-2	MW-1R	Dissolved	Water	6010	163657
480-53903-3	WCMW-7	Dissolved	Water	6010	163657
480-53903-4	WCMW-907	Dissolved	Water	6010	163657
480-53903-5	MW-4R	Dissolved	Water	6010	163657
480-53903-5 MS	MW-4R MS	Dissolved	Water	6010	163657
480-53903-5 MSD	MW-4R MSD	Dissolved	Water	6010	163657
480-53903-6	MW-2R	Dissolved	Water	6010	163657
480-53903-7	WCMW-6	Dissolved	Water	6010	163657
480-53903-8	WCMW-5	Dissolved	Water	6010	163657
480-53903-9	WCMW-2	Dissolved	Water	6010	163657
480-53903-10	WCMW-4	Dissolved	Water	6010	163657
480-53903-11	WCMW-1	Dissolved	Water	6010	163657
480-53903-12	WCMW-3	Dissolved	Water	6010	163657
480-53903-13	MW-3R	Dissolved	Water	6010	163657
480-53903-14	WCMW-9	Dissolved	Water	6010	163657
480-53903-16	WCMW-10	Dissolved	Water	6010	163657
480-53903-17	WCMW-8	Dissolved	Water	6010	163657
LCS 480-163064/16-B	Lab Control Sample	Dissolved	Water	6010	163657
LCSD 480-163064/23-B	Lab Control Sample Dup	Dissolved	Water	6010	163657
MB 480-163064/15-B	Method Blank	Dissolved	Water	6010	163657

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-53903-1

Matrix: Water

Client Sample ID: WCMW-11

Date Collected: 01/27/14 09:01 Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			163849	01/30/14 17:38	RAL	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 11:39	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 11:24	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:07	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 19:29	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 16:49	HTL	TAL BUF

Client Sample ID: MW-1R Lab Sample ID: 480-53903-2

Date Collected: 01/27/14 09:06 Date Received: 01/29/14 01:30

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163849	01/30/14 18:02	RAL	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 12:18	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 11:53	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:09	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 19:41	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 16:52	HTL	TAL BUF

Client Sample ID: WCMW-7 Lab Sample ID: 480-53903-3

Date Collected: 01/27/14 10:03 Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	163954	01/31/14 01:45	LCH	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 12:56	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF

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Matrix: Water

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-53903-3

Matrix: Water

**Client Sample ID: WCMW-7** Date Collected: 01/27/14 10:03

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 12:23	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:10	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 19:43	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:02	HTL	TAL BUF

Client Sample ID: WCMW-907 Lab Sample ID: 480-53903-4

Date Collected: 01/27/14 10:03 Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 12:53	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:12	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 19:46	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:04	HTL	TAL BUF

Client Sample ID: MW-4R Lab Sample ID: 480-53903-5 Date Collected: 01/27/14 10:06 Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163849	01/30/14 18:50	RAL	TAL BUF
Total/NA	Analysis	MAVPH		5	163628	01/29/14 13:51	MAN	TAL BUF
Total/NA	Analysis	MA VPH		5	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 13:22	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:14	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 19:49	HTL	TAL BUF

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#### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-5

Matrix: Water

Client Sample ID: MW-4R Date Collected: 01/27/14 10:06 Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:11	HTL	TAL BUF

Lab Sample ID: 480-53903-6 Client Sample ID: MW-2R

Matrix: Water

Date Collected: 01/27/14 11:26 Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163849	01/30/14 19:14	RAL	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 14:43	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 14:21	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:25	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:04	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:23	HTL	TAL BUF

Lab Sample ID: 480-53903-7 **Client Sample ID: WCMW-6** Date Collected: 01/27/14 11:34 **Matrix: Water** 

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163849	01/30/14 19:38	RAL	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 15:21	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 14:51	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:26	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:15	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:26	HTL	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-53903-8

Matrix: Water

**Client Sample ID: WCMW-5** Date Collected: 01/27/14 12:35

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163849	01/30/14 20:01	RAL	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 16:00	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 15:20	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:28	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:18	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:37	HTL	TAL BUF

Client Sample ID: WCMW-2 Lab Sample ID: 480-53903-9

Date Collected: 01/27/14 13:06 Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163849	01/30/14 20:25	RAL	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 17:17	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 15:50	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:30	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:21	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:40	HTL	TAL BUF

Client Sample ID: WCMW-4 Lab Sample ID: 480-53903-10

Date Collected: 01/27/14 13:45 **Matrix: Water** 

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			163954	01/31/14 02:09	LCH	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 17:56	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 16:19	DGB	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-53903-10

Matrix: Water

Client Sample ID: WCMW-4 Date Collected: 01/27/14 13:45

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:33	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:24	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:42	HTL	TAL BUF

Client Sample ID: WCMW-1 Lab Sample ID: 480-53903-11

Date Collected: 01/27/14 14:10 Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	163954	01/31/14 02:33	LCH	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 18:34	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 16:49	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:35	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:27	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:45	HTL	TAL BUF

**Client Sample ID: WCMW-3** Lab Sample ID: 480-53903-12 Date Collected: 01/27/14 14:57 Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			163954	01/31/14 02:56	LCH	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 19:13	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 17:18	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF

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Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Lab Sample ID: 480-53903-12

Matrix: Water

Client Sample ID: WCMW-3 Date Collected: 01/27/14 14:57

Date Received: 01/29/14 01:30

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Analysis	7470A	<del></del>	1	163721	01/29/14 12:36	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:30	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:47	HTL	TAL BUF

Client Sample ID: MW-3R Lab Sample ID: 480-53903-13

Date Collected: 01/27/14 15:41

Date Received: 01/29/14 01:30

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163954	01/31/14 03:21	LCH	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 19:51	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 17:48	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:38	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:33	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:50	HTL	TAL BUF

Client Sample ID: WCMW-9

Date Collected: 01/27/14 15:52

Lab Sample ID: 480-53903-14

Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163954	01/31/14 03:44	LCH	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 20:30	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 18:47	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:40	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:35	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF

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#### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCMW-9

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-14

Matrix: Water

Date Collected: 01/27/14 15:52 Date Received: 01/29/14 01:30

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Dissolved Analysis 6010 164246 01/31/14 17:53 HTL TAL BUF

Client Sample ID: TB-01272014 Lab Sample ID: 480-53903-15

Date Collected: 01/27/14 12:00 Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260C			163954	01/31/14 04:08	LCH	TAL BUF	-

Client Sample ID: WCMW-10 Lab Sample ID: 480-53903-16

Date Collected: 01/28/14 09:36 Matrix: Water

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	163954	01/31/14 04:32	LCH	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 21:09	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 19:17	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:45	JRK	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:38	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:56	HTL	TAL BUF

**Client Sample ID: WCMW-8** Lab Sample ID: 480-53903-17

Date Collected: 01/28/14 11:02 **Matrix: Water** 

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	164048	01/31/14 15:13	RAL	TAL BUF
Total/NA	Analysis	MAVPH		1	163628	01/29/14 21:47	MAN	TAL BUF
Total/NA	Analysis	MA VPH		1	163716	01/29/14 13:05	DGB	TAL BUF
Total/NA	Prep	3510C			163794	01/30/14 05:48	KEB	TAL BUF
Total/NA	Fraction	MA EPH Frac			163830	01/30/14 09:01	KEB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164006	01/31/14 19:46	DGB	TAL BUF
Total/NA	Analysis	MA-EPH		1	164270	02/03/14 10:58	DGB	TAL BUF
Dissolved	Prep	7470A			163625	01/29/14 07:45	JRK	TAL BUF
Dissolved	Analysis	7470A		1	163721	01/29/14 12:47	JRK	TAL BUF

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#### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID: 480-53903-17

Matrix: Water

**Client Sample ID: WCMW-8** Date Collected: 01/28/14 11:02

Date Received: 01/29/14 01:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	3005A	<del></del> -		163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164031	01/30/14 20:50	HTL	TAL BUF
Dissolved	Prep	3005A			163657	01/29/14 10:45	EHD	TAL BUF
Dissolved	Analysis	6010		1	164246	01/31/14 17:59	HTL	TAL BUF

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

#### Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
lowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	04-01-14
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14 *
West Virginia DEP	State Program	3	252	03-31-14
Wisconsin	State Program	5	998310390	08-31-14

<sup>\*</sup> Expired certification is currently pending renewal and is considered valid.

# **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale TestAmerica Job ID: 480-53903-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
MA VPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MAVPH	Massachusetts - Volatile Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
MA-EPH	Massachusetts - Extractable Petroleum Hydrocarbons (GC)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF

#### **Protocol References:**

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-53903-1	WCMW-11	Water	01/27/14 09:01	01/29/14 01:30
480-53903-2	MW-1R	Water	01/27/14 09:06	01/29/14 01:30
480-53903-3	WCMW-7	Water	01/27/14 10:03	01/29/14 01:30
480-53903-4	WCMW-907	Water	01/27/14 10:03	01/29/14 01:30
480-53903-5	MW-4R	Water	01/27/14 10:06	01/29/14 01:30
480-53903-6	MW-2R	Water	01/27/14 11:26	01/29/14 01:30
480-53903-7	WCMW-6	Water	01/27/14 11:34	01/29/14 01:30
480-53903-8	WCMW-5	Water	01/27/14 12:35	01/29/14 01:30
480-53903-9	WCMW-2	Water	01/27/14 13:06	01/29/14 01:30
480-53903-10	WCMW-4	Water	01/27/14 13:45	01/29/14 01:30
480-53903-11	WCMW-1	Water	01/27/14 14:10	01/29/14 01:30
480-53903-12	WCMW-3	Water	01/27/14 14:57	01/29/14 01:30
480-53903-13	MW-3R	Water	01/27/14 15:41	01/29/14 01:30
480-53903-14	WCMW-9	Water	01/27/14 15:52	01/29/14 01:30
480-53903-15	TB-01272014	Water	01/27/14 12:00	01/29/14 01:30
480-53903-16	WCMW-10	Water	01/28/14 09:36	01/29/14 01:30
480-53903-17	WCMW-8	Water	01/28/14 11:02	01/29/14 01:30

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# **Detection Limit Exceptions Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-53903-1

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

 Method
 Matrix
 Analyte
 Units
 Client RL
 Lab PQL

 6010
 Water
 Antimony
 mg/L
 0.00600
 0.00679

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# Chain of **Custody Record**



Receipt .

' Yes□ No□

**TestAmerica** 

THE LEADER IN ENVIRONMENTAL TESTING

IAL-4124 (1007)																										
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Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Ąį	Aqueous Sed.	Soil		Unpres. H2SO4	HNO3	HCI	NaOH	ZnAc/ NaOH	Ž Ž	ষ্ট্		J.P.H											<del></del>
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DCMW-7		1003		X _				X	X			X	X	X	X							Z.Fr	acti	<u>ons</u>	& te	agat
DCMW-907		1003		X				×	X			X		X								ana	elytes	5 fo	P	孙
MW-4R		1006		X				X	X			X	X	X	X							3. A	ildi	ssolu	ed v	refal
MW-4RMS		1006		X				X				X			+	+>	M	ad r	12	Solk	1	wa	c fe	icl!	SHer	<u>rad</u>
MW-4R MSD	g <sub>i</sub> ,	1006		X				X				X			_	>	M	de	īx S	Spik	1s	240				_
MW-CR		1176	—	X				X	X			X	X	X	X							Ļ				_
WC16		1134		X_				<u> </u> X	X			X	X	X	X											_
12MW-5		1735	ĺ	X				X	X			X	X	X	X											_
DCMW-Z		1306		X				X	$\times$			X	$\times$	X,	X											
WCMW-4	<b>V</b>	1345		X				X	X			X	X	X)	X											_
Possible Hazard Identification  Non-Hazard   Flammable   Skin tritant	☐ Poison B 🛚	Unknown	- 1	mpte D Retun	•		×	Disc	osal i	Bv La	ab [	Arch	nive Fi	or		_ Mor	nths	(A fe	ee may er tha	y be as n 1 moi	sessi	ed if sam	nples are	retaine	ď	
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# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_



Drinking Water? Yes ☐ No ☐

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)																				
Client		Project i	Manager	4 1/	1	_ 72	~	~					Date				Chain of	Custody /	Vumber 70	
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Sample I.D. No. and Description	_		snc		89	181	8	1 2	Ξó	Diso	N	即至	4							
(Containers for each sample may be combined on one line)	Date	Time	Адивс	Sed.	Unpres.	H2SO4	HNO3 HC/	NaOH	NaC NaC	Ã	$\preceq$	TI) =	1							
DCHW-1	1/27/14	1410	X				XX			X	< >	< 5					X	XXI E	<u> </u>	
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MW-32		1541	X				$\mathbf{x}\mathbf{x}$			X	$\langle \rangle$	< ×						<b>P</b> H		,
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1XMW-10	1/28/14	93G	X				XX			X	< )						3.4	Kedi	Ssok	ed new
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Possible Hazard Identification  Non-Hazard   Flammable   Skin Irritant	Poison B		1 '	Disposal		ر الحاد	isposal .	Ou Lab		Arabi	vo En	_	10	untto a	(A fee may longer tha	v be asse	ssed if sa	mples are	retained	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant  Tum Around Time Required	PUISUIT B	Unknown	□ не	ium io ci	ieni														· · · · · · ·	 -z critar
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## **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-53903-1

Login Number: 53903 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

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Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

TestAmerica Job ID: 480-54095-1 Client Project/Site: Quincy Inervale

#### For:

Woodard & Curran Inc 40 Shattuck Road Suite 110 Andover, Massachusetts 01810

Attn: Mr. Jarrod Yoder



Authorized for release by: 2/6/2014 3:04:32 PM Rich Emerich, Analyst V rich.emerich@testamericainc.com

Designee for

Becky Mason, Project Manager II (413)572-4000 becky.mason@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# **Definitions/Glossary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

#### **Qualifiers**

#### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

TEF

TEQ

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

These commonly used abbreviations may or may not be present in this report.
Listed under the "D" column to designate that the result is reported on a dry weight basis
Percent Recovery
Contains no Free Liquid
Duplicate error ratio (normalized absolute difference)
Dilution Factor
Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
Decision level concentration
Minimum detectable activity
Estimated Detection Limit
Minimum detectable concentration
Method Detection Limit
Minimum Level (Dioxin)
Not Calculated
Not detected at the reporting limit (or MDL or EDL if shown)
Practical Quantitation Limit
Quality Control
Relative error ratio
Reporting Limit or Requested Limit (Radiochemistry)
Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Buffalo

#### **Case Narrative**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

Job ID: 480-54095-1

**Laboratory: TestAmerica Buffalo** 

Narrative

#### Receipt

The samples were received on 2/1/2014 at 12:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1° C.

#### GC Semi VOA

No analytical or quality issues were noted.

#### **Organic Prep**

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 164383.

No other analytical or quality issues were noted.

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	MassDEP Analytical Protocol Certification Form						
Labo	Laboratory Name: TestAmerica Buffalo Project #: 480-54095						
Proje	ect Location	n:	Quincy	Inervale	RTN:		
This f	form prov	ides c	ertifications for	the data set for th	ne following Labora	atory Sample ID Number(s	):
480-	54905 [1-2	2]					
Matric	ces: I	Gr	oundwater/Surfa		Soil/Sediment	Drinking Water ☐ Air	Other:
				•	k all that apply be	•	
8260		_		Mass DEP VPH	8081 Pesticides	7196 Hex Cr	Mass DEP APH
CAM 8270	II A ∟ SVOC		AM III B 10 Metals	CAM IV A LI	CAM V B 4 8151 Herbicides	CAM VI B 8330 Explosives	CAM IX A TO-15 VOC
CAM	_	_	AM III C	CAM IV B	CAM V C	CAM VIII A	CAM IX B
6010 CAM	Metals III A	_	20 Metals	8082 PCB CAM V A	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	
	Affirmat	ive Re	sponses to Que	stions A through	F are required for "	Presumptive Certainty" st	atus
Α		preserv	ved (including ter			d on the Chain-of-Custody, I prepared/analyzed within	Yes No
В	Were the protocol(	-	` '	nd all associated Q	C requirements spec	cified in the selected CAM	Yes No
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?  Yes No						Yes No
D						ecified in CAM VII A, nd Reporting of Analytical	Yes No
E	E   modification(s)? (Refer to the individual method(s) for a list of significant modifications).					Yes No	
F	Were all evaluated	applica	able CAM protoco aboratory narrativ	ol QC and performa ve (including all "No	ince standard non-co	onformances identified and stions A through E)?	Yes No
	1			•	•	sumptive Certainty" statu	S
G	protocol(	s)?		•	ing limits specified ir		Yes No <sup>1</sup>
<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350							
Н	Were all	QC pe	rformance stand	ards specified in the	e CAM protocol(s) a	chieved?	Yes No <sup>1</sup>
I	✓ Were results reported for the complete analyte list specified in the selected CAM protocol(s)? ✓ Yes ✓ No¹						
1 All neç	All negative responses must be addressed in an attached laboratory narrative.						
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.							
Signa	Signature: Position: Technical Director, TestAmerica Westfield						
Printe	Printed Name: Richard Emerich Date: 2/6/14 13:15					3:15	
		ectronicall	y signed and approved.		_		

## **Detection Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

Client Sample ID: WCMW-1 (Filtered)

TestAmerica Job ID: 480-54095-1

Lab Sample ID: 480-54095-1

No Detections.

Client Sample ID: WCMW-1 Lab Sample ID: 480-54095-2

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
PCB-1242	0.154 J	0.241	0.0962 ug/L	1 8082	Total/NA

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## **Client Sample Results**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

Lab Sample ID: 480-54095-1

Matrix: Water

Date Collected: 01/31/14 10:36 Date Received: 02/01/14 00:10

Client Sample ID: WCMW-1 (Filtered)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1221	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1232	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1242	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1248	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1254	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1260	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1262	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
PCB-1268	<0.233		0.233	0.0930	ug/L		02/04/14 08:02	02/05/14 07:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		30 - 150				02/04/14 08:02	02/05/14 07:45	1
DCB Decachlorobiphenyl	63		30 - 150				02/04/14 08:02	02/05/14 07:45	1

**Client Sample ID: WCMW-1** Lab Sample ID: 480-54095-2 Date Collected: 01/31/14 10:38 Matrix: Water

Date Received: 02/01/14 00:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1221	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1232	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1242	0.154	J	0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1248	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1254	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1260	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1262	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
PCB-1268	<0.241		0.241	0.0962	ug/L		02/04/14 08:02	02/05/14 08:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		30 - 150				02/04/14 08:02	02/05/14 08:01	1
DCB Decachlorobiphenyl	63		30 - 150				02/04/14 08:02	02/05/14 08:01	1

## **Surrogate Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Water Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		TCX1	DCB1	
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	
480-54095-1	WCMW-1 (Filtered)	68	63	
480-54095-2	WCMW-1	84	63	
LCS 480-164383/2-A	Lab Control Sample	77	66	
LCSD 480-164383/3-A	Lab Control Sample Dup	82	62	
MB 480-164383/1-A	Method Blank	75	70	

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

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TestAmerica Job ID: 480-54095-1

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

## Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 480-164383/1-A

**Matrix: Water** 

Analysis Batch: 164557

Client Sample ID: Method Blank

**Prep Batch: 164383** 

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1221	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1232	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1242	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1248	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1254	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1260	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1262	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1
PCB-1268	<0.250		0.250	0.100	ug/L		02/04/14 08:02	02/05/14 06:57	1

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Surrogate	%Recovery Qualif	fier Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75	30 - 150	02/04/14 08:02	02/05/14 06:57	1
DCB Decachlorobiphenyl	70	30 - 150	02/04/14 08:02	02/05/14 06:57	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA **Prep Batch: 164383** 

**Matrix: Water** Analysis Batch: 164557

Lab Sample ID: LCS 480-164383/2-A

Spike LCS LCS Analyte Added Result Qualifier Limits Unit %Rec PCB-1016 4.00 3.006 ug/L 75 40 - 140 PCB-1260 4.00 3.316 ug/L 83 40 - 140

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	77		30 - 150
DCB Decachlorobiphenvl	66		30 - 150

Lab Sample ID: LCSD 480-164383/3-A

**Matrix: Water** 

Analysis Batch: 164557

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Prep Batch: 164383** 

	Spike	LCSD	LCSD			%Rec.		RPD	
Analyte	Added	Result	Qualifier Unit	: <b>D</b>	%Rec	Limits	RPD	Limit	
PCB-1016	4.00	3.090	ug/L	-	77	40 - 140	3	20	
PCB-1260	4.00	3.463	ug/L	=	87	40 - 140	4	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	82		30 - 150
DCB Decachlorobiphenyl	62		30 - 150

TestAmerica Buffalo

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2/6/2014

## **QC Association Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

## GC Semi VOA

## Prep Batch: 164383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-54095-1	WCMW-1 (Filtered)	Total/NA	Water	3510C	
480-54095-2	WCMW-1	Total/NA	Water	3510C	
LCS 480-164383/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-164383/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-164383/1-A	Method Blank	Total/NA	Water	3510C	

#### Analysis Batch: 164557

Lab Sample ID	Lab Sample ID Client Sample ID		Prep Type Matrix		Prep Batch	
480-54095-1	WCMW-1 (Filtered)	Total/NA	Water	8082	164383	
480-54095-2	WCMW-1	Total/NA	Water	8082	164383	
LCS 480-164383/2-A	Lab Control Sample	Total/NA	Water	8082	164383	
LCSD 480-164383/3-A	Lab Control Sample Dup	Total/NA	Water	8082	164383	
MB 480-164383/1-A	Method Blank	Total/NA	Water	8082	164383	

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#### **Lab Chronicle**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

Client Sample ID: WCMW-1 (Filtered)

Date Collected: 01/31/14 10:36 Date Received: 02/01/14 00:10 Lab Sample ID: 480-54095-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			164383	02/04/14 08:02	KEB	TAL BUF
Total/NA	Analysis	8082		1	164557	02/05/14 07:45	JMM	TAL BUF

Lab Sample ID: 480-54095-2

-ub campic ib: 400 04000 2

Matrix: Water

Client Sample ID: WCMW-1

Date Collected: 01/31/14 10:38

Date Received: 02/01/14 00:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			164383	02/04/14 08:02	KEB	TAL BUF
Total/NA	Analysis	8082		1	164557	02/05/14 08:01	JMM	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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## **Certification Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

#### Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>		
Arkansas DEQ	State Program	6	88-0686	07-06-14		
California	NELAP	9	1169CA	09-30-14		
Connecticut	State Program	1	PH-0568	09-30-14		
Florida	NELAP	4	E87672	06-30-14		
Georgia	State Program	4	N/A	03-31-14		
Illinois	NELAP	5	200003	09-30-14		
lowa	State Program	7	374	03-01-15		
Kansas	NELAP	7	E-10187	04-01-14		
Kentucky (DW)	State Program	4	90029	12-31-14		
Kentucky (UST)	State Program	4	30	04-01-14		
Louisiana	NELAP	6	02031	06-30-14		
Maine	State Program	1	NY00044	12-04-14		
Maryland	State Program	3	294	03-31-14		
Massachusetts	State Program	1	M-NY044	06-30-14		
Michigan	State Program	5	9937	04-01-14		
Minnesota	NELAP	5	036-999-337	12-31-14		
New Hampshire	NELAP	1	2337	11-17-14		
New Jersey	NELAP	2	NY455	06-30-14		
New York	NELAP	2	10026	03-31-14		
North Dakota	State Program	8	R-176	03-31-14		
Oklahoma	State Program	6	9421	08-31-14		
Oregon	NELAP	10	NY200003	06-09-14		
Pennsylvania	NELAP	3	68-00281	07-31-14		
Rhode Island	State Program	1	LAO00328	12-30-14		
Tennessee	State Program	4	TN02970	04-01-14		
Texas	NELAP	6	T104704412-11-2	07-31-14		
USDA	Federal		P330-11-00386	11-22-14		
Virginia	NELAP	3	460185	09-14-14		
Washington	State Program	10	C784	02-10-14 *		
West Virginia DEP	State Program	3	252	03-31-14		
Wisconsin	State Program	5	998310390	08-31-14		

<sup>\*</sup> Expired certification is currently pending renewal and is considered valid.

## **Method Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL BUF

#### **Protocol References:**

MA DEP = Massachusetts Department Of Environmental Protection

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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## **Sample Summary**

Client: Woodard & Curran Inc Project/Site: Quincy Inervale

TestAmerica Job ID: 480-54095-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-54095-1	WCMW-1 (Filtered)	Water	01/31/14 10:36	02/01/14 00:10
480-54095-2	WCMW-1	Water	01/31/14 10:38	02/01/14 00:10

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## **Login Sample Receipt Checklist**

Client: Woodard & Curran Inc Job Number: 480-54095-1

Login Number: 54095 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

oronton months, modern		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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## Chain of **Custody Record**

Temperature on Receipt



Drinking Water? Yes □ No 🗵

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)																				
Client 1 of d		Project N				0		77.			?	- i ,		Date	1-1			Chain of Custo		
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Client Docalard & Curran  Address  980 Washington Street  City State Zipo  Project Name and Location (State)	Stc 325	Site Con	r Di	תן זשטו לחיגוב	level	Cur	ax No.	C(Z*	, c	dsi	width	يخصر	Privatice					Page(	of _[	
City State Zip C	Code	Site Con. Zyo. Carrier/V	tact	۷.,,	i	Lá	b Con	tact		 M.,		(2)		nalysis (i ore space						
Project Name and Location (State)	Willo	Cartier/V	Vavbill	Numb	er			ER	YV	(a)	<del>201</del> 1	48				T				
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Contract/Purchase Order/Quote No.	7,							Cont	tainei	rs R		5				11			rial Instructions/ litions of Receipt	
				Matri	ix .				erval											
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	All	Sed.	Soil	Unores	H2SO4	HNO3	HC	NaOH ZnAc/	NaOH	8								
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Possible Hazard Identification			Sam	ole Dis	sposal	, —										6				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐	Poison B	Unknown		Return	To CI	lient	<b>X</b> 4	Dispos	sal By	v Lab		Archive I	For	Mor	ths loi	nger than	1 moni	essed if samples th)		
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## APPENDIX D BORING LOGS

Watermark Project Name Project Number				PROJECT INFORMATION  SARSS - Quincy  08403-17	SHEET DATE S	ING NO. MW-IR ETOf E STARTED		
Boring Co Driller Logged By Checked By	DAMIEN JA	ett Everton		Boring Location MW   C Drilling Method Direct Push Drilling Equipment Geoprobe TOC Elevation (feet)		Groun Date 411113	twater Levels Time Depth 1251 6-62	
D E P	SAMPLE INFO	RMATION		STRATUM / SAMPLE DESCRIPTION				
H DEPTH (feet)	Type BLOWS PER 6 INCHES	PEN/REC (inches)	PID/ FID	Grading term (if applicable), SOIL GROUP NAME, other soil groups, state [density, max particle size, angularity, and shape] or [consisten evidence of contamination (visual, olfactory), formation name, other	ov and alor	otioika I	REMARKS (e.g., Well Info)	
1	MA	36/48	0.2	madilla SAND tour around, to	ace	SW		
2				Wen gi			<u>.</u>	
7 4	J		V	•	-			
6	MA	18/48	-	Fine SAND, trace gravel, poor graded, gray, wet @ 7'	rly	SP		
7				·· ·				
8 8	1						7'	
9	MA	39/48	.5	Fine SAND, poorly graded		SP		
10				wet gmy				
				4" Peat layer 10-10'4", moist		PT	-	
2 12	- 10	W I	•	104-12' Coarse SAND, poorly graded, Saturated brown		SP		
3	HA HA	46/48 0	.b	graded, SAturated brown		SP		
4				Coarse SAND, pourly grades	<u> </u>	SP		
5				saturated, brown				
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oring Filler	Co.		Jacobs		Boring Location MW-2R Drilling Method Direct Push		. Date	twater Levels Time Depth
ogge	d By	Jaj 1900	rett Everton		Drilling Equipment Geoprobe	9		1346 4.65
песк	ed By .				TOC Elevation (feet)			
D		SAMPLE INFO	ORMATION		STRATUM / SAMPLE DESCRIPTION			
E P							uscs	REMARKS
T H	DEPTH	Type BLOWS PER BINCHE	e PEN/REC	PID/	Grading term (If applicable), SOIL GROUP NAME, other soil groups, or state [density, max particle size, angularity, and shape] or [consistency	and plastic	ıh√ı l	(e.g., Well Info)
	(feet)	& No.	1 1		ould appear of contamination (viewed alfastes) for water warms at a second	L		<del>-,</del>
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z					and black debris, white chips trash, metal tragment, moist, well graded commic or parcelas	W		
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.				ſ	Well graded.	J	6'	
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	ĭ	1,10	34/48	. 2	Fine SAND, some cobbles broke Stre), well graded soturated, Sheen on water, udor, dark by		Sw	
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<i>W</i> atéı	<b>m</b> ark	Project Name Project Number	PROJECT INFORMATION  SARSS - Quincy  08403-17	BORING NO. MW-3K SHEET 1 of 1 DATE STARTED 4 11 13 DATE COMPLETED 4 11 13
oring Co riller ogged By hecked By	D <u>ymien</u> Jarr	Seologic  SA(x) b S  ett Everton	Boring Location Drilling Method Direct Push Drilling Equipment Geoprobe TOC Elevation (feet)	Groundwater Levels  Date Time Depth  4/4/12 / 1/20 3.577
D E P	SAMPLE INFO	PRMATION	STRATUM / SAMPLE DESCRIPTION  Grading term (if applicable), SOIL GROUP NAME, other soil groups	USCS REMARKS
T DEPTH Typ (feet) & N		(inchas) CIC)	state (density, max particle size, angularity, and shape) or [consister evidence of contamination (visual olfactory) formation name, other	ncy and plasticity]
1	NA	50/10 6.7	Fine SAND, little gravel, well grached brown, moist	
3				
1 4	4	11		, 1
5	NA	12/48 1.4	Medium to Coarse SAND AND gravel, well graded, wet 6	D 51 SW ▼
6			gravel. Well graded, wet 6 dark brown	5'
7				
8 8	NA	32/48 0.4	COArsie SAND to Fine SAND Silt. Brown to black, No s snturated, well graded	dand sub
10				
12 12	V		4	
3		12/18 2.8	SAME AS above 4"	Sm
	· <u>à</u> .		4" peat, moist, orangish	pt sm
15			4" very fine sand and si poorly graded, black and gr	(+ )
6		4	Set well @ 141	1
			Borns terminated @ 16'	
			Notive motorial 14-16'	
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1 100 1000				SARSS - Quincy		· of 1
Project Number			er	08403-17		<del></del>
Co.	L	Seologic .		Boring Location かい~UR	Gmu	ndwater Levels
				Drilling Method Direct Push	Date	Time Depth
		ett Everton			- \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1327 4.04
	U			3		
	SAMPLE INFO	RMATION		STRATUM / SAMPLE DESCRIPTION		
				Grading term (if applicable), SOIL GROUP NAME, other soil groups.	USCS color, moisture Symbol	REMARKS (e.g., Well Info)
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	Cod By	SAMPLE INFO  SAMPLE INFO  SAMPLE INFO  O  NA  NA  12  NA	Aternark Project Number Project Numb	Atermark Project Name Project Number  Co. Geologic DAMICO DACODS Jarrett Everton  SAMPLE INFORMATION  SAMPLE INFORMATION  NA 30/48 5.0  NA 30/48 42.8  NA 27/46 2.7	Attermark  Project Number  Geologic  DAMPICO 3ACODS JACODS	ATECOMORISM Project Name Project Name Project Name Project Name Project Name Project Name Project Name Project Name Project Name Date States Date Date Date Date Date States Date Date Date Date States Date



WE	LL	ID:
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MW-LR

**Ground Surface Elevation\*:** 

**NSVD** 

## Watermark Environmental As-Built Groundwater Monitoring Well Construction Diagram - Overburden

Project: SARSS Quincy Project #: 08403-17 Date Start: 4/11/2013 4/11/2013 Date End: Logged By: Jarrett Everton

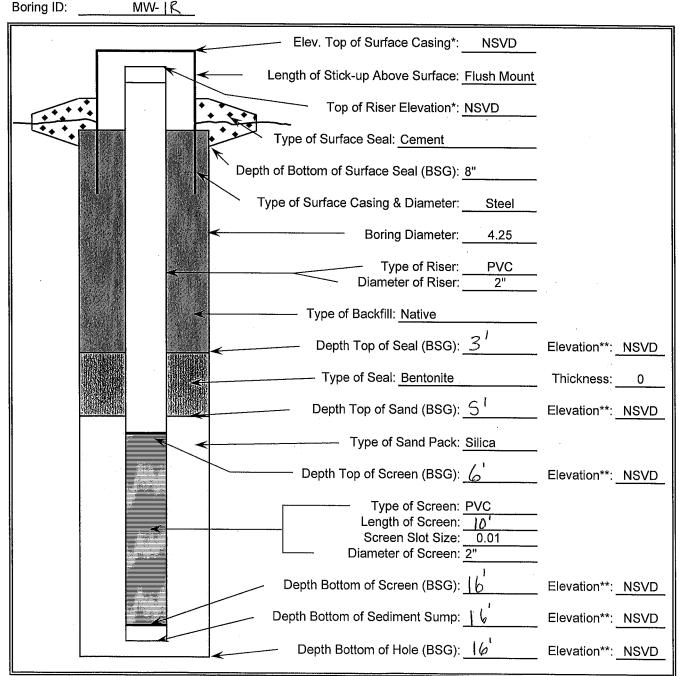
Location: 175 Intervale St.

Drilling Company: Geologic

Drilling Method: Direct Push

Drilling Foreman: Damien Jacobs

Checked By:



BSG = Feet Below Surface Grade

<sup>\* =</sup> Surveyed elevation

<sup>\*\* =</sup> Elevation calculated based on surveyed ground surface elevation NSVD=Not Surveyed



WELL ID: MW- 2-R

**Ground Surface Elevation\*:** 

**NSVD** 

## Watermark Environmental As-Built Groundwater Monitoring Well Construction Diagram - Overburden

Project: SARSS Quincy Project #: 08403-17 Date Start: 4/11/2013

Checked By:

Drilling Company: Geologic

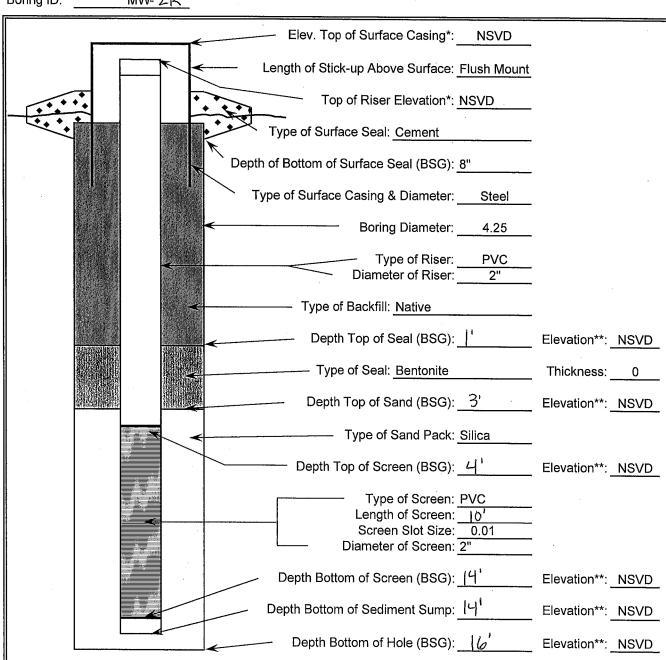
Location: 175 Intervale St.

Date End: 4/11/2013 Drilling Method: Direct Push

Logged By: Jarrett Everton Drilling Foreman: Damien Jacobs

Boring ID:

MW- 2R



BSG = Feet Below Surface Grade

<sup>\* =</sup> Surveyed elevation

<sup>\*\* =</sup> Elevation calculated based on surveyed ground surface elevation NSVD=Not Surveyed



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WEI	1 11 1.
**	10.

MW- 3R

**Ground Surface Elevation\*:** 

Type of Screen: PVC Length of Screen: 101 Screen Slot Size: 0.01 Diameter of Screen: 2"

Depth Bottom of Sediment Sump: 141 Elevation\*\*: NSVD

Depth Bottom of Hole (BSG): 16' Elevation\*\*: NSVD

Depth Bottom of Screen (BSG): 14'

Location: 175 Intervale St.

Drilling Company: Geologic

**NSVD** 

## Watermark Environmental As-Built Groundwater Monitoring Well Construction Diagram - Overburden

Project: **SARSS Quincy** Project #: 08403-17 Date Start: 4/11/2013 Date End: 4/11/2013

Drilling Method: Direct Push Drilling Foreman: Damien Jacobs Logged By: Jarrett Everton Checked By: Boring ID: MW-3R Elev. Top of Surface Casing\*: NSVD Length of Stick-up Above Surface: Flush Mount Top of Riser Elevation\*: NSVD Type of Surface Seal: Cement Depth of Bottom of Surface Seal (BSG): 8" Type of Surface Casing & Diameter: Steel Boring Diameter: 4.25 Type of Riser: PVC
Diameter of Riser: 2" Type of Backfill: Native Depth Top of Seal (BSG): 1 Elevation\*\*: NSVD Type of Seal: Bentonite Thickness: 0 Depth Top of Sand (BSG): 3' Elevation\*\*: NSVD Type of Sand Pack: Silica Depth Top of Screen (BSG): 41 Elevation\*\*: NSVD

Elevation\*\*: NSVD

BSG = Feet Below Surface Grade

<sup>\* =</sup> Surveyed elevation

<sup>\*\* =</sup> Elevation calculated based on surveyed ground surface elevation NSVD=Not Surveyed



WE	LL	ID:	

MW- 4R

**Ground Surface Elevation\*:** 

**NSVD** 

## Watermark Environmental As-Built Groundwater Monitoring Well Construction Diagram - Overburden

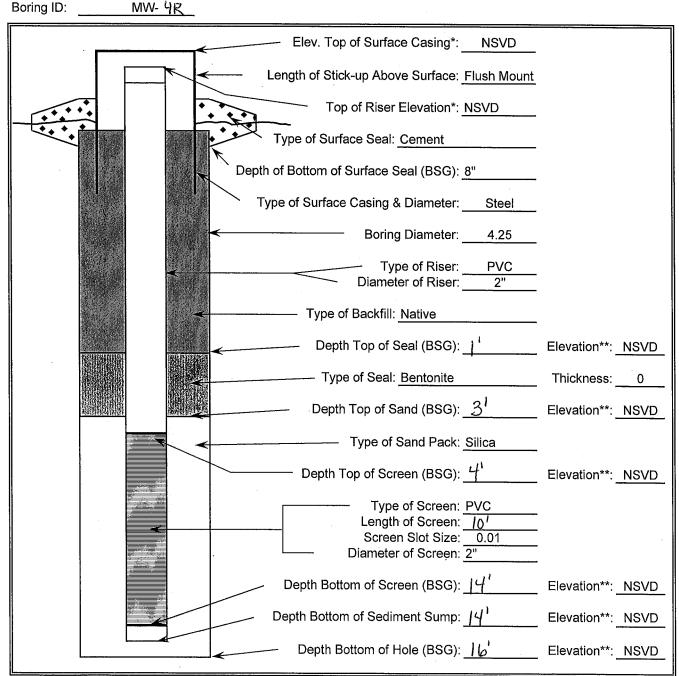
Project: SARSS Quincy Project #: 08403-17 Date Start: 4/11/2013 Date End: 4/11/2013 Jarrett Everton Logged By:

Location: 175 Intervale St. Drilling Company: Geologic

Drilling Method: Direct Push

Drilling Foreman: Damien Jacobs

Checked By:



BSG = Feet Below Surface Grade

<sup>\* =</sup> Surveyed elevation

<sup>\*\* =</sup> Elevation calculated based on surveyed ground surface elevation NSVD=Not Surveyed

#### WELL NUMBER WCSB-1/ WCMW-1 Woodard & Curran 980 Washington Street Dedham, MA 02026 WOODARD Telephone: 781-251-0200 &CURRAN CLIENT City of Quincy PROJECT NAME 175 & 189 Intervale Street PROJECT LOCATION Quincy, MA PROJECT NUMBER 226332.01 **DATE STARTED** 9/26/13 **COMPLETED** 9/26/13 HOLE SIZE 2.0" **GROUND ELEVATION GROUND WATER LEVELS: DRILLING CONTRACTOR** Technical Drilling Services $\sqrt{2}$ AT TIME OF DRILLING $\sqrt{7.00}$ ft **DRILLING METHOD** Hollow stemmed auger AT END OF DRILLING \_---CHECKED BY Jarrod Yoder LOGGED BY Ryan Smith WOODARD & CURRAN STANDARD - WC STD. GDT - 3/5/14 12:09 - WANDOVER!PROJECTS/226332 QUINCY MA - 175 & 189 INTERVALE STREETIWIP/SUBSURFACE SAMPLING/BORING LOGS/BORING LOGS. GP. **NOTES** AFTER DRILLING \_---Environmental Data GRAPHIC LOG RECOVERY DEPTH (ft) MATERIAL DESCRIPTION WELL DIAGRAM Standpipe (4.20' above ground) Brown, dry, loose, coarse to fine SAND, little gravel PID = 1ppmv Native Fill 38 5-6-5-5 Black with yellow, dry, loose, FILL (coal and/or tar-like material) (11)PID = 14.1ppm Note: WCSB-1 (1-2) collected for PCBs, VOCs, EPH Bentonite Orange, moist to wet, moderately dense, sticky, SILT, some medium to Seal fine sand PID = 0.7pbmv Note: WCSB-1 (2.5-3) collected for PCBs, VOCs, MCP 14 Metals, EPH Schedule 40 71 2-2-2-2 2" PVC Rise (4)PID = 0.6ppmv Minimal recovery Note: Fill oberserved (glass) 0 2-1-1-1 (2) 6 6.0 Gray, saturated, loose, sticky, SILT, little coarse to fine sand PID = 1ppmv 58 3-2-1-1 7.3 (3)Black, wet, moderately dense, coarse SAND, some medium to fine sand PID = 2.6ppmv Note: Fill observed (Coal/ tar) 8.0 WCSB-1 (7-8) collected for PCBs, VOCs, EPH Sand Filter Brown, wet, moderately loose, coarse to fine SAND Pack PID = 0.5ppmv Note: Increasing amount of coarse sand with depth 2" P∀C 2-2-3-4 75 Screen (5) PID = 0.5ppmv 10 Brown, wet, moderately dense, coarse to fine SAND PID = 0.2ppmv 67 2-5-6-5

Gray, wet, dense, medium to fine SAND, little silt

PID = 0.3ppmv

PID = 0.6ppmv

PID = 0.3ppmv

(11)

9-7-9-7 (16)

			Woodard 980 Was Dedham,	hington	Street	WELL NUMBER	WCSE	3-10/ V		MVV-10   GE 1 OF 1
		DARD RRAN			-251-0200					
	CLIEN	IT _Ci	ty of Quinc	у	F	PROJECT NAME 175 & 189 Intervale	Street			
	PROJ	ECT N	UMBER _2	226332.0	<u>)1                                    </u>	PROJECT LOCATION Quincy, MA				
	DATE	STAR	RTED 9/26	6/13	<b>COMPLETED</b> 9/26/13	GROUND ELEVATION	HOLE	<b>SIZE</b> _2.0	)"	
	DRILL	ING C	ONTRACT	OR Te	echnical Drilling Services					
	DRILL	ING N	METHOD _	Hollow s	stemmed auger	$\sqrt{2}$ AT TIME OF DRILLING 6.00 ft				
1	LOGG	ED B	Y Ryan S	mith	CHECKED BY Jarrod Yoder	AT END OF DRILLING				
SGP	NOTE	s				AFTER DRILLING				
KING LUGS/BURING LUG	O DEPTH (ft)	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DES Deet Deet Deet	CRIPTION	Environmental Data	WEL	L DIA	AGRAM Standpipe (3.70' above ground)
(S/B)					Brown, dry, moderately loose, SAND	, some gravel (fill)				N (* = 111
MPLIN					Note: Fill observed (glass and plastic	:)	PID = 0.2p	pmv S		Native Fill
E SAI		79	13-10-12- 21	<del>                                     </del>		ing CAND	_			Bentonite
KFAC			(22)		Light brown, dry, dense, medium to f					Seal
JBSD	2				Note: WCSB-11 (2.5-3) collected for	MCP 14 Metals	PID = 0.3p	omv		
VIP\SI										Cabadula 40
=E I \V							DID = 0.4m			Schedule 40 2" PVC Riser
SIRE			13-17-19-		3.0		PID = 0.1p	pmv		
ALE		83	21		Gray, dry, dense, medium to fine SA	ND and silt, some gravel	_			
IEK			(36)				PID = 0.1p	omv		
89 IN	_ 4				4.0					
75 & 1			-		Gray, moist to wet, dense, SILT, som	ne medium to fine sand, little gravel	_			
A - 1					Note: Moisture increases with depth		PID = 0pp	ımv 📗		
CY M		33	3-4-5-4							
QUIN		55	(9)							
2332	6						PID = 0pp	mv 📗		
5/22			-		6.0 <u>∇</u> Brown, wet, moderately dense, coars	on to fine CANID, some group! some	_			
JECI					silt	se to line SAND, some graver, some				
KPRC							PID = 0pp	mv		
OVE		38	5-3-3-2						+	2" P∀C Screen
AND			(6)				DID = 0==			Screen
60:	_ 8						PID = 0pp			
14 12										
- 3/5/				<u> </u>	8.5 Brown, moist, moderately loose, soft	SILT and organic materials	PID = 0pp	mv 🗏		
105.		42	1-1-1-1	$\ \cdot\ $	•					
מוצי		42	(2)		Note: Organic materials have not bro	INCH UOWII				
۲ - W	10						PID = 0pp	mv 📗		
DARL					10.0 Gray, saturated, loose, very sticky, S	ПТ	_		+	Sand Filter
NA IS				[ <b>]</b>	Gray, saturated, loose, very sticky, S 10.5	IIL I	_			Pack
YAN				[ <u>`</u>	Reddish brown, damp, dense, SILT a	and organic debris (PEAT)	PID = 0pp	lmv		
ž OS		100	1-2-2-2	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\						
Š C S			(4)				PID = 0pp			
ŊΑ	12'	'		<del></del>		ı	LID = Obb	711V		

Bottom of borehole at 12.0 feet.

## WELL NUMBER WCSB-11/ WCMW-11 PAGE 1 OF 1

₩o &c	ODARD URRAN	Telephor		1-251-0200			
CLIE	NT _Ci	ty of Quinc	у	PROJECT NAME 175 & 189 Intervale	Street		
PRO	JECT N	IUMBER _2	22633	.01 PROJECT LOCATION Quincy, MA			
DAT	E STAF	RTED _9/25	5/13	COMPLETED 9/25/13 GROUND ELEVATION	HOLE	E SIZE 2.0"	
DRIL	LING (	CONTRACT	OR _	echnical Drilling Services GROUND WATER LEVELS:			
				stemmed auger $\qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad$			
LOG	GED B	Y Ryan S	mith	CHECKED BY _Jarrod Yoder AT END OF DRILLING			
NOT	<b>ES</b> _Se	econd sam	oling e	vent completed with Geoprobe on 11/22/2013. AFTER DRILLING		i	
DEPTH (#)	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION  Feet 36S	Environmental Data	WELL D	DIAGRAM  Flush  Mounted  Roadbox
PLING BC		44 44 44		Brown, dry, moderately loose, SAND, little gravel, trace organic debris at surface	PID = 0.6p	ppmv 2	
2 2 AM	100	11-11-14- 11 (25)	0 0	Note: WCSB-11 (1-2) collected for VOCs, EPHs, VPHs on 9/25/2013 Elevated PID (221.7 ppm) reading during 11/22/2013 sampling  Blackish brown, dry, moderately loose, medium to fine SAND, some gravel	PID = 0.8p	ppmv (C	► Native Fill
	25	14-14-9-12 (23)	200	Note: WCSB-11 (2.5-3) collected for PCBs, MCP 14 Metals on 9/25/2013	PID = 0.5p		■ Bentonite Seal
4 Allervare	17	12-14-19-	5	Dark brown, damp to moist, SAND, little silt, trace gravel  Note: WCSB-11 (6-7) collected fro MCP Metals and PCBS	PID = 0.5p  PID = 0.6p		− Schedule 40
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	'' 	(33)			PID = 0.5p		2" PVC Rise
8	29	8-2-3-3 (5)		Dark brown to gray, moderately dense (soft), SAND and silt	PID = 0.6p - PID = 0.4p		
	46	2-2-2-1 (4)		Gray, wet, dense, coarse to fine SAND, little silt	PID = 0pp	pmv	
10 10 17:10 14I	- - -			6 6 6 6 6	PID = 0pp		Sand Filter Pack
12	63	1-1-2-1 (3)			PID = 0.1p	ppmv	- 2" P∀C Screen
700 - 000 -	96	2-4-12-11 (16)		Light brown, saturated, loose, fine SAND and gravel, some silt	PID = 0pp		
OCURRAN S		2224		Brown, wet, moderately dense, coarse SAND, some medium to fine sand	PID = 0pp		
16_ 16_	75	(5)		(16.0	PID = 0pp	pmv	

## BORING NUMBER WCSB-12 PAGE 1 OF 1

	RAN	rele	priorie.	781-251-0	200											
CLIENT	<b>r</b> _Ci	ty of C	uincy						PRO	JECT NAME	175 & 1	189 Interva	le Stree	et		
PROJE	CT N	IUMBE	R _226	332.01					PRO	JECT LOCA	TION Q	uincy, MA				
DATE S	STAR	RTED	11/22/	13	COMPLET	TED _1	11/22/13		GR	OUND ELEV	ATION _		H	OLE SIZE	2.0"	
DRILLII	NG C	ONTR	ACTO	R Technica	al Drilling Ser	rvices			GRO	OUND WATE	R LEVEL	S:				
				oProbe						AT TIME C	OF DRILLI	NG				
					CHECKE					AT END O	F DRILLIN	NG				
NOTES	<u> </u>									AFTER DR	RILLING					1
	RECOVERY %	GRAPHIC LOG	Feet BGS					MATI	ERIAI	. DESCRIPT	ΓΙΟΝ					Environmental Data
				FILL (Glas	ss and brick o	observ	ed)									
2	30			Note: WC	SB-12 (2.5-3	3) collec	cted for V	/OCs and	d PCE	s						PID = 77.5p
4			4.0	Gray, san	dy FILL											PID = 0pp
6				Orange, S	SILT and sand	d										+
			6.0	Note: WC	SB-12 (5.5-6	6) collec	cted for F	PCBs								PID = 22.4p
-				Gray, coa	rse to fine SA	AND										PID = 0pp
8	65															
			8.0	Black to d	ark brown, d	lense, \$	SILT									PID = 0ppr
		<del>'        </del>	10.0					Bottor	n of b	orehole at 1	0.0 feet.					
									WCS	58 - 12	11/22/2	013 46:57				

## BORING NUMBER WCSB-13 PAGE 1 OF 1

&CUR	RAN	reie	epnone: 781-251-0200		
CLIENT	_Ci	ty of C	Quincy	PROJECT NAME _175 & 189 Intervale Street	
PROJE	CT N	IUMBI	ER _226332.01	PROJECT LOCATION Quincy, MA	
DATE S	STAR	RTED	<u>11/22/13</u> <b>COMPLETED</b> <u>11/22/13</u>	GROUND ELEVATION HOLE SIZE 2.0"	
DRILLIN	NG C	ONTE	RACTOR Technical Drilling Services	_ GROUND WATER LEVELS:	
DRILLIN	NG N	/ETH	OD GeoProbe	AT TIME OF DRILLING	
LOGGE	D B	<b>Y</b> _Ry	yan Smith CHECKED BY Jarrod Yoder	AT END OF DRILLING	
NOTES	i			AFTER DRILLING	
O DEPTH (ft)	RECOVERY %	GRAPHIC LOG	MA` Feet BGS	TERIAL DESCRIPTION	Environmental Data
			Brown, sandy FILL (Brick debris observed)		
_ 2			2.0 Orange, silty FILL		+
	30				
			Note: WCSB-13 (2.5-3) collected for PCBs		PID = 3ppm
4			4.0		
			Orange, dense, SILT		Ť
					PID = 0ppm
6					
			6.0 Black, SILT and organics		PID = 0ppm
			Note: WCSB-13 (7-8) collected for PCBs		PID = 0ppm
<b>-</b> -	65				
8			8.0		_
		<u> </u>	Reddish brown, PEAT		
		<u> </u>	<u> </u>		PID = 0ppm
		1, 11,	:		
10		71/2	10.0		
		1, 11,		om of borehole at 10.0 feet.	
				WCSB-13	

## BORING NUMBER WCSB-14 PAGE 1 OF 1

&CU	RRAN	Tele	ephone: 781-251-0	1200				
CLIEN	T _C	ity of C	Quincy			PROJECT NAME 175 & 189 Intervale	Street	
PROJI	ECT N	NUMBE	ER 226332.01			PROJECT LOCATION Quincy, MA		
DATE	STAF	RTED	11/22/13	COMPLETED 11/22/13	3	GROUND ELEVATION	HOLE SIZE 2.0"	
DRILL	ING (	CONTR	RACTOR Technica	al Drilling Services		GROUND WATER LEVELS:		
DRILL	ING N	METHO	OD GeoProbe			AT TIME OF DRILLING		
	ED B	Y Ry	an Smith	CHECKED BY _Jarrod \	Yoder	AT END OF DRILLING		
NOTE	s					AFTER DRILLING		
O DEPTH	RECOVERY %	GRAPHIC LOG	Feet BGS		MAT	ERIAL DESCRIPTION		Environmental Data
			Black FILI	L (glass and coal observed)	d)			
_ 2		$\bowtie$	2.0 Brown, co	parse to fine SAND				PID = 0ppn
	60							
								PID = 0ppn
_ 4 _			4.0					
			Brown, de	ense, SILT and sand				
								PID = 0ppm
		]						
6								
_								
			7.0 Gray, SIL	T with sheen				_
<b>⊢</b> −	30		Note: WC	SB-14 (7-8) collected for E	PH and V	OCs		PID = 29.5pp
_ 8		, 🖳	8.0	, GRAVEL				_
			•	, 0.5.7.				
			•					DID 0
10			10.0					PID = 0ppm
HLd3O 0						m of borehole at 10.0 feet.		

#### Woodard & Curran 980 Washington Street Dedham, MA 02026 Telephone: 781-251-0200

## **BORING NUMBER WCSB-15**

PAGE 1 OF 1

&cu	RRAN	10.0	pnone: 781-	-201-0200						
CLIEN	IT _C	ity of Q	uincy					ROJECT NAME <u>175 &amp; 189</u>	treet	
			<b>R</b> 226332.0					ROJECT LOCATION Quino		
								ROUND ELEVATION	 HOLE SIZE 2.	0"
					rilling Service:	S	G	ROUND WATER LEVELS:		
			GeoProb					AT TIME OF DRILLING		
		Y Rya	an Smith	(	HECKED BY	Jarrod Yoder				
NOTE	s							AFTER DRILLING		
OEPTH (ft)	RECOVERY %	GRAPHIC LOG	Feet BGS			Ν	/ATERI	AL DESCRIPTION		Environmental Data
			Brov	wn, FILL						
			Note	e: WCSB-	15 (0.5-1.5) c	ollected for VOC	Cs			PID = 85.4p
				wn, sandy	FILL					
	43		Note	es: WCSB	s-15 (2.5-3) co	ollected for PCB	s			
					. ( ,					PID = 0.8pp
_										
4			4.0							
		0 0	Gray	y, SAND a	and granite de	ebris				PID = 0ppr
		00	5.0							
				y, wet, coa	arse to fine S/	AND				
			Note	e: WCSB-	15 (6-7) collec	cted for PCBs				
6_			11010	J. 1100B	10 (0 1) 00110	0.00 101 1 0.00				
										DID 0
										PID = 0ppr
			7.5							
8	40			y, wet, SA	ND and grave	el				
		[000]								PID = 0ppr
		200								
		600								
10		ل <u>ِي رِي</u>	10.0			Bo	ottom o	f borehole at 10.0 feet.		<u> </u>
HLd3Q 0 0 2 4 4 6 6 7 10							WC Sec. 10 c	S8 - 15		

## BORING NUMBER WCSB-16 PAGE 1 OF 1

	ty of C	Quincy	PROJECT NAME 175 & 189 Intervale Street	
IECT N				
		ER 226332.01		
			GROUND ELEVATION HOLE SIZE _2.0"	
LING C	ONTE	RACTOR Technical Drilling Services	GROUND WATER LEVELS:	
LING N	METHO	GeoProbe	AT TIME OF DRILLING	
GED B	<b>Y</b> _Ry	an Smith CHECKED BY Jarrod Yoder	AT END OF DRILLING	
S			AFTER DRILLING	
RECOVERY %		Feet BGS	ERIAL DESCRIPTION	Environmental Data
	F . 1 . 1	l.		
		<u>\</u>		PID = 0ppm
		l·		
	/ <del></del>	2.0		
40		Brown, coarse to fine SAND		
		3.5		PID = 0ppm
		Light brown, medium to fine SAND		DID - 0
	****			PID = 0ppm
	111	5.0		
		Note: WCSB-16 (6-7) collected for VOCs		PID = 0ppm
72				PID = 0ppm
		See embedded photograph		
		Coo omboadoa priotograpii		
-				
]		10.0		
	SECOVERY %	RECOVERY % GRAPHIC LOG	SED BY Ryan Smith CHECKED BY Jarrod Yoder  SE STATE OF SOIL  SE STATE OF SOIL  A0 STATE OF SOIL  A0 STATE OF SOIL  A0 STATE OF SOIL  Brown, coarse to fine SAND  A0 STATE OF SOIL  A0 STATE OF SOIL  Brown, medium to fine SAND  A1 SAND  A1 SAND  A2 SAND  A3 STATE OF SOIL  A1 SAND  A1 SAND  A2 SAND  A3 STATE OF SOIL  A3 STATE OF SOIL  A4 SAND  A4	SED BY Ryan Smith CHECKED BY Jarrod Yoder AFTER DRILLING —  AFTER DRILLING —  MATERIAL DESCRIPTION  MATERIAL DESCRIPTION  MATERIAL DESCRIPTION  TOPSOIL  Job Solution of Description SAND  Gray, wet, SILT Note: WCSB-16 (6-7) collected for VOCs  See embedded photograph  Bottom of borehole at 10.0 feet.

## Woodard & Curran 980 Washington Street Dedham, MA 02026 Telephone: 781-251-0200 WOODARD

## BORING NUMBER WCSB-17 PAGE 1 OF 1

⊗CUR!					
CLIENT					
			226332.01		
				GROUND ELEVATION HOLE SIZE 2.0"	
			ACTOR Technical Drilling Services		
			O GeoProbe		
			n Smith CHECKED BY Jarrod Yoder		
NOTES	<u> </u>			AFTER DRILLING	
O DEPTH (ft)	RECOVERY %	907 FB	MA' eet GS	TERIAL DESCRIPTION	Environmental Data
			See embedded photograph		
2	27		Black, SAND and coal/tar  Note: WCSB-17 (2.5-3) collected for EPH and	i PCBs	PID = 4.3ppr
	1.4.	0	Gray, SAND and granite debris		
	2	40.7	Note: WCSB-17 (4-5) collected for PCBs		PID = 0ppm
NOTES  HLd 30 0	5		Gray, wet, GRAVEL and sand		PID = Oppm
		- <del>-</del>	Botto	om of borehole at 10.0 feet.	
			Size 102	8-17	

## BORING NUMBER WCSB-18 PAGE 1 OF 1

&cu	RRAN	TOIC	elepnone: 781-251-0200	
CLIEN	IT _Ci	ty of C	Quincy PROJECT NAME _175 & 189 Intervale St	reet
PROJ	ECT N	IUMBE	BER _226332.01 PROJECT LOCATION _Quincy, MA	
DATE	STAF	RTED	<u>11/22/13</u> <b>COMPLETED</b> <u>11/22/13</u> <b>GROUND ELEVATION</b>	HOLE SIZE 2.0"
DRILL	ING C	ONTE	TRACTOR Technical Drilling Services GROUND WATER LEVELS:	
DRILL	ING N	/ETHC	HOD GeoProbe AT TIME OF DRILLING	
LOGG	ED B	Y Ry	yan Smith CHECKED BY Jarrod Yoder AT END OF DRILLING	
NOTE	s		AFTER DRILLING	
о ОЕРТН (ft)	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION  Feet BGS	Environmental Data
			Dark brown, sandy FILL	
			Note: WCSB-18 (2.5-3) collected for PCBs	
	33			PID = 0ppm
4			⇒ 3.0  Gray, SAND and granite debris	
		° 0	5.0 See embedded photograph	PID = 0ppm
6 				
			7.0 Gray, wet, SILT	
 _ 8	33		Note: WCSB-18 (7-8) collected for PCBs	PID = 0ppm
			See embedded photograph	
<u> </u>				
10			Bottom of borehole at 10.0 feet.	<u> </u>
			WCSB - 18	

#### Woodard & Curran 980 Washington Street Dedham, MA 02026 Telephone: 781-251-02

## **BORING NUMBER WCSB-19**

PAGE 1 OF 1

&CU	RRAN	reie	pnone: 781-251-0200		
CLIEN	IT <u>Ci</u>	ty of C	uincy	PROJECT NAME 175 & 189 Intervale Street	
PROJ	ECT N	IUMBE	<b>ER</b> _226332.01	PROJECT LOCATION Quincy, MA	
DATE	STAR	RTED	11/22/13 <b>COMPLETED</b> 11/22/13	GROUND ELEVATION HOLE SIZE 2.0"	
DRILL	ING C	ONTF	ACTOR Technical Drilling Services	GROUND WATER LEVELS:	
DRILL	ING N	/ETHC	GeoProbe	AT TIME OF DRILLING	
LOGG	ED B	<b>Y</b> _Ry	an Smith CHECKED BY Jarrod Yoder	AT END OF DRILLING	
NOTE	s			AFTER DRILLING	
о ОЕРТН (ft)	RECOVERY %	GRAPHIC LOG	MAT Feet BGS	TERIAL DESCRIPTION	Environmental Data
- ŭ			SAND (former building footprint)		
			Note: WCSB-19 (2.5-3) collected for EPH and	PCBs	
,					PID = 0ppm
_ 2 _					
_ 2 _	53				
<u> </u>					DID = 0
_ 4			4.0		PID = 0ppm
			See embedded photograph		
6					
		o U	6.0 SAND and granite debris		
<u> </u>		· 0	Note: WCSB-19 (6-7) collected EPH and PCB	ds.	PID = 0ppm
		0		-	
<u> </u>	23	٥٥			
_ 8		· 0			
L _		0			
		۰ 0			PID = 0ppm
10					
			10.0 Botto	m of borehole at 10.0 feet.	
			W C	11/22/2018 14:88	

# Woodard & Curran 980 Washington Street

## WELL NUMBER WCSB-2/ WCMW-2 PAGE 1 OF 1

WOO &CU	DARD	Telephor			200				
CLIEN	NT _Ci	ty of Quinc	у			PROJECT NAME 175 & 189 Intervale	Street		
PROJ	ECT N	IUMBER _2	226332						
DATE	STAF	RTED 9/26	5/13		<b>COMPLETED</b> 9/26/13	GROUND ELEVATION	HOLE	SIZE 2.0"	
DRILI	ING (	CONTRACT	OR _	Technica	I Drilling Services	_ GROUND WATER LEVELS:			
DRILI	LING N	METHOD _	Hollow	v stemme	ed auger	$\subseteq$ AT TIME OF DRILLING $\_$ 7.00 ft			
LOGO	SED B	Y Ryan S	mith		CHECKED BY _Jarrod Yoder				
B NOTE	s					AFTER DRILLING			
ATTA & 189 INTERVALE STREETWINSUBSURACE SAMPLINGBORING LOGS/GPJ PACE SAMPL	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	Feet BGS	MATERIAL D	DESCRIPTION	Environmental Data	WELL DI	AGRAM Flush Mounted
G/BOH		_	0		Brown, dry, moderately loose, me	dium to fine SAND, some gravel	PID = 0.1p	選 選	Roadbox
SAMPLIN SAMPLIN 2	67	6-11-16-2 (27)	0	)	(granite debris)		PID = 0.1p		Native Fill
		18-10-12-	[。				PID = 0.1p	pmv Signal	
nsans	54	18 (22)	) o (	4.0			PID = 0.2p	pmv	
	38	20-10-12-	0		Brown, moist, moderately loose, n (granite debris)	nedium to fine SAND, little gravel	PID = 0.1p	pmv	Bentonite Seal
9 8TR		(22)	) 0	ر ا			PID = 0.1p	pmv	
NTERVA	33	7-5-6-6	0	<u></u>			PID = 0pp	mv =	Schedule 40 2" PVC Rise
88		(11)	300	8.0			PID = 0.2p	pmv	
A - 175 8	13	8-5-5-5		; ; ;	Brown, saturated, very loose, coal	rse to fine SAND and gravel, trace silt	PID = 0pp	mv	
10		(10)		10.0			PID = 0pp	mv	
- 3/5/14 12:12 - 1/4 NAN DOVERHANDEC SEZES322 QUINCY MA	42	8-8-6-6			Gray, saturated, moderately loose	e, coarse to fine SAND, little gravel	PID = 0.1p	pmv.	
12_		(14)		į į			PID = 0.4p	pmv	
	50	13-9-8-5		13.0			PID = 0.3p	pmv	
14		(17)		14.0	Gray, saturated, loose, coarse to t		PID = 0.1p	pmv 🕴 🔻	Sand Filter Pack
- VANC	75	9-2-3-3			Gray, saturated, loose, SILT, little Note: WCSB-2 (14-15) collected for		PID = 0.7p	pmv	2" P∀C Screen
16_	'3	(5)		16.0	Lenses (<1") of black and r	reddish silty organic material at 15.75'	PID = 0.6p	pmv	
	58	3-3-3-3 (6)			Gray, saturated, very loose, very s gravel	sticky, SILT and coarse sand, trace	PID = 0.2p		
OSTD.C		(0)					PID = 0.2p		
20 20	100	4-2-2-2 (4)		19.0	Reddish brown, moist, dense, SIL	T and organic debris (PEAT)	PID = 0.1p		
STAND,		(1)	<u>'' ''' '</u>	<u></u>			PID = 0.2p		
18	58	1-2-2-3 (4)	<u>1</u> /2 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	* <u>'</u>			PID = 0.2p PID = 0.1p		
DARD &	100	3-3-3-2	<u> </u>	23.0			PID = 0.3p	pmv	
8 <u>24</u>	] '00	(6)			Brown, damp, dense, fine SAND a	and silt	PID = 0.2p	pmv	

#### **BORING NUMBER WCSB-20** Woodard & Curran 980 Washington Street Dedham, MA 02026 WOODARD Telephone: 781-251-0200 &CURRAN CLIENT City of Quincy PROJECT NAME 175 & 189 Intervale Street PROJECT NUMBER 226332.01 PROJECT LOCATION Quincy, MA DATE STARTED 11/22/13 HOLE SIZE 2.0" COMPLETED 11/22/13 GROUND ELEVATION DRILLING CONTRACTOR Technical Drilling Services **GROUND WATER LEVELS:** DRILLING METHOD GeoProbe $\sqrt{2}$ AT TIME OF DRILLING 8.00 ft CHECKED BY Jarrod Yoder AT END OF DRILLING \_---LOGGED BY Ryan Smith STD.GDT - 3/5/14 12:13 - \ANDOVER\PROJECTS\226332 QUINCY MA - 175 & 189 INTERVALE STREETWIP\SUBSURFACE SAMPLING\BORING LOGS\BORING LOGS.GP, **NOTES** AFTER DRILLING ---Environmental Data GRAPHIC LOG RECOVERY DEPTH (ft) MATERIAL DESCRIPTION Light brown, moist, moderately loose, medium to fine SAND 2 20 PID = 3ppmv Gray, dry, moderately loose, SAND and granite debris 0 0 Gray and black, moist to wet, coarse to fine SAND and gravel 0. ( 6 Note: Black staining observed throughout interval. Moisture increases with depth. PID = 0.3ppmv Ø. Increasingly sticky/ silty at depth with noticeable odor. C Ó WCSB-20 (14-15) collected for EPH and PCBs 0 23 8 $\bar{\Delta}$ Ø PID = 0.3ppmv 10 0 0 Ò. 0 0 Ò PID = 18.4ppmv 0. ( 40 0 14 0 Ó PID = 2.4ppmv 15.0 17, Reddish brown, moist, dense, SILT and fine sand (PEAT) WOODARD & CURRAN STANDARD - WC 16 1, 11 Note: WCSB-20 (16-17) collected for EPH, VOCs and PCBs 11/ PID = 46.1ppmv 1, 11 11, 18 100 1, 11 18.0 PID = 27.5ppm Light brown, moist, moderately dense, coarse to fine SAND 19.0 PID = 4.5ppmv Gray, wet, moderately dense, coarse to fine SAND, some silt

# Woodard & Curran 980 Washington Street Dedham, MA 02026 Telephone: 781-251-0200 CLIENT City of Quincy PROJECT NUMBER 226332.01

BORING	NUMBER	WCSB-2	1
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PAGE 1 OF 1

&CU	RRAN	1 61	ephone: 781-251-0200		
	CLIENT City of Quincy PROJECT NAME 175 & 189 Intervale Street				
			ER 226332.01		
DATE	STAF	RTED	<u>11/22/13</u> <b>COMPLETED</b> <u>11/22/13</u>	GROUND ELEVATION HOLE SIZE 2.0"	
DRILL	ING C	CONTI	RACTOR Technical Drilling Services	GROUND WATER LEVELS:	
			OD GeoProbe	AT TIME OF DRILLING	
LOGG	ED B	<b>Y</b> _Ry	yan Smith CHECKED BY Jarrod You	ler AT END OF DRILLING	
NOTE	s			AFTER DRILLING	
о DЕРТН (ft)	RECOVERY %	GRAPHIC LOG	Feet BGS	MATERIAL DESCRIPTION	Environmental Data
		0 0	OAND and granite debits		
		, (			
		0	: -		
		V			PID = 5.1p
_2		0 0	See embedded photograph		
	40		Note: WCSB-21 (2.5-3) collected for EP	old and DCRs	
			Note: WGSB-21 (2.3-3) collected for Er	TI dilu PODS	
4					PID = 3.3pp
6			6.0		
			Gray orange, sticky, SILT		
			Notes: WCSB-21 (6-7) collected for EPH	1 and PCBs	PID = 0pp
8	40				
		$\prod$	Black, SILT and organics		
					PID = 0pp
			-		
					PID = 0ppr
10			10.0	Bottom of borehole at 10.0 feet.	
				WCSB-21 54 75'	

### Woodard & Curran 980 Washington Street Dedham, MA 02026 Telephone: 781-251-0200

## **BORING NUMBER WCSB-22**

PAGE 1 OF 1

	KKAN				
	CLIENT City of Quincy PROJECT NAME 175 & 189 Intervale Street				
PROJECT NUMBER 226332.01 PROJECT LOCATION Quincy, MA					
	DATE STARTED 11/22/13 COMPLETED 11/22/13 GROUND ELEVATION HOLE SIZE 2.0"				
			RACTOR Technical Drilling Services		
			OD GeoProbe		
			ran Smith CHECKED BY Jarrod Yoder		
NOIE	<u> </u>			AFTER DRILLING	
O DEPTH (ft)	RECOVERY %	GRAPHIC LOG	M./ Feet BGS	ATERIAL DESCRIPTION	Environmental Data
			See embedded photograph		
			Note: WCSB-22 (2.5-3) collected for EPH at	nd PCBs	
	37				PID = 0.4ppn
4		111	4.0 Orange, SILT and sand		_
$\vdash$			Note: WCSB-22 (4.5-5) collected for EPH a	nd PCRs	PID = 18.4ppr
			5.0 See embedded photograph		_
-			Coo omboddod priotograpii		PID = 4.3ppn
6					, 15opp
<u> </u>					
	7				
_ 8 _	,				
10			100		
			-10.0 Bot	ttom of borehole at 10.0 feet.	<u> </u>
				WCSB-22 (-5'	

## WELL NUMBER WCSB-3/ WCMW-3 PAGE 1 OF 1

&CU	DARD RRAN	Telephor	ne: 781	-251-0200				
	CLIENT     City of Quincy       PROJECT NAME     175 & 189 Intervale Street							
PROJ	PROJECT NUMBER   226332.01   PROJECT LOCATION   Quincy, MA							
DATE	STAR	RTED 9/26	6/13	COMPLETED 9/26/13 GROUND E	LEVATION	_ HOLE	<b>SIZE</b> 2.0"	
DRILL	ING C	ONTRACT	OR T	3	ATER LEVELS:			
DRILL	ING N	METHOD _	Hollow	stemmed auger $ o$ AT TIN	ME OF DRILLING 8.00 ft			
LOGG	ED B	Y Ryan S	mith	CHECKED BY Jarrod Yoder AT EN	D OF DRILLING			
NOTE	<b>S</b> _Re	efusal enco	untered	(concrete floor) at ~4' bgs in original location. AFTER	R DRILLING			
O DEPTH (ft)	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION  set GS		Environmental Data	WELL D	Flush Mounted
	25	8-5-6-5 (11)		Brown, dry, loose, coarse to medium SAND, little	gravel	PID = 0.9ppr		Roadbox  Native Fill
	38	7-6-14-11		3.0	avel	PID = 0.4ppr	mv →	<ul><li>Bentonite Seal</li><li>Schedule 40 2" PVC Rise</li></ul>
4		(20)		Note: WCSB-3 (5-6) collected for VOCs	avei	PID = 0.2ppr	mv	
6	50	15-14-5-4 (19)				PID = 1.2ppr		
8	29	1-2-1-1 (3)		Black, moist, moderately dense, SILT and fill  Note: Fill observed (Coal and/or tar)  8.0 VCSB-3 (7-8) collected for PCBs, EPH, V		PID = 0.7ppr		
	100	1-1-1-1 (2)		Gray with black streaking, wet, moderately loose	sticky, SILT, little sand	PID = 1ppm		Sand Filter Pack - 2" P∀C Screen
			<u> </u>	10.0 Black, wet, moderately dense, SILT and organic	material	PID = 0.2ppr	mv 📄	
			+++	Gray, saturated, loose, SILT				
<b> </b>				10.7 Reddish brown, moist, dense, SILT and organic r	material (PFAT)	PID = 0.4ppr	mv	
	33	1-4-2-1 (6)	1/2 1/2	11.3 Gray, wet, moderately loose, coarse SAND, som		PID = 0.6ppr	mv	
12			(	12.0	o modium to imo dana	PID = 0.3ppr	mv 📗	
	100	1100		Gray, saturated, loose, SILT		PID = 0.4ppr		
14	100	1-1-2-2 (3)		Gray, saturated, moderately loose, coarse to med	dium SAND and silt	PID = 0.7ppr	mv	
<u> </u>			_:::1  }; _	14.0				
				Bottom of borehole at 14.0 f	CCI.			

		DARD	Woodard 980 Was Dedham Telephor	shingto , MA C	n Street	R WC		<b>CMW-4</b> GE 1 OF 1
	CLIEN	IT _Ci	ty of Quinc	у	PROJECT NAME 175 & 189 Interval	e Street		
	PROJ	ECT N	UMBER _	22633	2.01 PROJECT LOCATION Quincy, MA			
	DATE	STAR	TED 9/2	6/13	COMPLETED 9/26/13 GROUND ELEVATION	HOL	E SIZE 2.0"	
	DRILL	ING C	ONTRACT	TOR _	echnical Drilling Services GROUND WATER LEVELS:			
	DRILL	ING N	METHOD _	Hollov	stemmed auger   AT TIME OF DRILLING _5.50 ft	t		
		ED B	Y Ryan S	mith	CHECKED BY Jarrod Yoder AT END OF DRILLING			
S.GPJ	NOTE	<b>S</b> _Se	cond sam	pling e	vent completed with Geoprobe on 11/22/2013. AFTER DRILLING			
32 QUINCY MA - 175 & 189 INTERVALE STREETIWIPISUBSURFACE SAMPLINGIBORING LOGSIBORING LOGS.GPJ	о DEРТН (ft)	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION  Feet BGS	Environmental Data	WELL DI	AGRAM Standpipe (4.15' above ground)
SAMPLING/BO					Gray, dry, moderately loose, medium to fine SAND, trace gravel  Note: WCSB-4 (1-2) collected for VOCs on 11/22/2013  Elevated PID (359.3 ppm) reading during 11/22/2013 sampling	PID = 4.2μ	ppmv	Native Fill
UBSURFACE 8		67	4-5-6-11 (11)		event	PID = 1.5p	opmv	Bentonite Seal Schedule 40
RVALE STREET/WIP\S\		50	6-2-1-2		Orange, moist to wet, coarse to medium SAND, little silt  Note: Fill observed (coal and/or asphalt)  WCSB-4 (2.5-3) collected for VOCs, PCBs, MCP 14 Metals, EPH, VPH on 9/26/2013  Gray, wet, moderately dense, SILT, little fine sand, little woody debris	PID = 6.4p	opmv	2" PVC Rise
A - 175 & 189 INTE	4				Gray with orange, wet, moderately dense, SILT, some medium to fine sand	PID = 0.5p		
26332 QUINCY MA		100	1-1-1-1 (2)		5.8 District to the decree Old T. little cond. little cond. little cond.	PID = 0.6p	ppmv —	
- 3/5/14 12:14 - \\ANDOVER\PROJECTS\2263				+	Black, wet, moderately dense, SILT, little sand, little organic debris  Note: WCSB-4 (6-7) collected for VOCs, PCBs, EPH on 9/26/2013  WCSB-4 (7-8) collected for Metals on 11/22/2013	PID = 1.8p		2" P∀C
2:14 - \\ANDOVi	_ 8	100	5-1-1-1 (2)	<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	7.8	PID = 0p	pmv	Screen Sand Filter
		100	3-4-4-8 (8)		Saturated, brown, moderately dense, coarse to fine SAND, little silt	PID = 0.1μ	opmv	Pack
WOODARD & CURRAN STANDARD - WC STD.GDT		75	4-3-4-7 (7)			PID = 0.1p		
WOODARD	12				12.0	PID = 0p	pmv	

Bottom of borehole at 12.0 feet.

## Woodard & Curran 980 Washington Street Dedham, MA 02026

### WELL NUMBER WCSB-5/ WCMW-5 PAGE 1 OF 1

WOC &CU	DARD	Telephor	ne: 78	-251-0200			
CLIEN	NT Ci	ty of Quinc	:y	PROJECT NAME 175 & 189 Interva	ale Street		
PROJ	ECT N	IUMBER _2	226332				
DATE	STAR	RTED 9/25	5/13	COMPLETED 9/25/13 GROUND ELEVATION	HOLE	<b>SIZE</b> 2.0"	
DRILI	LING C	ONTRACT	OR _	echnical Drilling Services GROUND WATER LEVELS:			
DRILI	LING N	METHOD _	Hollow	stemmed auger   AT TIME OF DRILLING 7.00	ft		
	GED B	Y Ryan S	mith	CHECKED BY Jarrod Yoder AT END OF DRILLING			
NOTE	ES			AFTER DRILLING			
NOTE  (jt)  DEPTH  (jt)  O  DEPTH  2	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION  eet GS	Environmental Data	WELL DI	Standpipe (3.60' above
	-		\$	Black, dry, moderately loose, coarse to medium SAND, some gravel		滋滋	grouna <i>)</i>
Ž	75	9-11-13-6		Note: WCSB-5 (0.5-1.5) collected for PCBs, VOCs, EPH	PID = 73.8	opmvi — H	
		(24)		Brown, dry, moderately loose, coarse to medium SAND and gravel	PID = 9.5p	omv S	Native Fill
	50	5-6-4-4		Note: WCSB-5 (2.5-3) collected for PCBs, MCP 14 Metals	PID = 8.9p	pmv D	
7805 4		(10)	)	4.0	PID = 0.9p	pmv	
				Dark brown, wet, moderately loose, SILT, little coarse to fine sand, trace gravel	PID = 20.1	ppmv	■ Bentonite
	33	5-10-14-5 (24)		Dark brown, saturated, loose, coarse to medium SAND and gravel, little silt	PID = 51.8	ppmv	Seal
EKVAL				Note: WCSB-5 (5-6) collected for VOCs, EPH, VPH	PID = 16.8 <sub> </sub>	ppmv	Schedule 40 2" PVC Rise
8	25	6-6-4-5 (10)		Gray, saturated, loose, coarse SAND and gravel, little medium to fine sand	PID = 4.2p	pmv	2 1 00 1030
		0007			PID = 3.7p	pmv	
	50	6-3-3-7 (6)		9.5 10.0 Grayish dark brown, wet, moderately dense, SILT, little medium to fine	PID = 0pp	amv 📗	
<u> </u>	-			sand, trace coarse sand			
9332	42	4-3-3-2	*****	Gray, saturated, loose, coarse SAND, little medium to fine sand 11.5	PID = 0pp	amv and a second	
12_		(6)		Gray, saturated, moderately dense, coarse SAND, some gravel, some silt	PID = 5.1p	pmv	
	-	0.4.4.0	<u>\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ </u>	13.0 Gray, saturated, loose, coarse SAND, some medium to fine sand	PID = 3.9p	pmv	
14	83	2-1-1-2 (2)	1/2 1/2	Reddish brown, moist, dense, SILT, little fine sand (PEAT)	PID = 0pp	amv amv	
3574 12:15 - (VANDOVERIPED)	50	1-1-2-5	<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>		PID = 0pp	omv	- Sand Filter
16_	30	(3)		15.5  16.0 Brownish gray, moist, dense, SILT and fine sand (firm, sticky)	PID = 0pp	omv 📗	Pack
7,5/14			Ť III	Light gray, moist, dense, SILT and fine sand	PID = 0pp	,,,, <u> </u>	- 2" P∀C
1	75	2-2-2-2			FID = OP		Screen
9.0		(4)		18.0	PID = 0.1p	pmv	
	100	1-1-1-1		Light gray, wet, dense, SILT and fine sand	PID = 0.1p	omv	
20	100	(2)		20.0	PID = 0pp	omv 📗	
18			†	Light gray, moist, dense, SILT and fine sand (very sticky)	PID = 0pp	amv amv	
3 —	100	1-1-1-1 (2)			PID = 0pp	omv	
× – –					PID = 0pp		
24_	100	6-9-7-6 (16)		Gray, wet, moderately loose, coarse SAND, some silt, little medium to	+		
>		\ -/	ما"ام نم	fine sand	PID = 0pr	7111V	

# Woodard & Curran 980 Washington Street Dedham, MA 02026

### WELL NUMBER WCSB-6/ WCMW-6 PAGE 1 OF 1

WOO &CU	DARD RRAN	Telephor	ne: 78	51-0200				
CLIEN	IT _Cit	ty of Quinc	у		PROJECT NAME 175 & 189 Interva	le Street		
PROJ	ECT N	IUMBER _2	22633		PROJECT LOCATION Quincy, MA			
DATE	STAR	RTED _9/25	5/13	<b>COMPLETED</b> 9/25/13	GROUND ELEVATION	HOLE	<b>SIZE</b> 2.0"	
DRILL	ING C	ONTRACT	ror _	nnical Drilling Services	GROUND WATER LEVELS:			
DRILL	ING N	METHOD _	Hollov	mmed auger	$\sqrt{2}$ AT TIME OF DRILLING $25.00$	ft		
LOGG	SED B	Y Ryan S	mith	CHECKED BY _ Jarrod You	der AT END OF DRILLING			
NOTE	S				AFTER DRILLING			
DEPTH (ft)	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATER	RIAL DESCRIPTION	Environmental Data	WELL DI	AGRAM Standpipe (3.45' above
			0 0	Brown, dry, moderately loos	se, SAND and gravel		)       	ground)
	83	2-3-9-7 (12)	)	Note: Organic debris at surf	ace	PID = 0pp		Native Fill
2			1000			PID = 0pp		
				Brown, dry, moderately loos	•	PID = 0pp	mv	
	75	11-9-6-7	2000		cted for PCBs, MCP 14 Metals	— Гіб – Орр	- IIIV	<ul> <li>Bentonite</li> </ul>
4_		(15)		gravel	derately loos, medium to fine SAND, some	PID = 0.8p	omv	Seal
				gravel, little silt	derately dense, medium to fine SAND, little	PID = 3.7p	omv	
	33	2-2-2-2 (4)		Note: WCSB-6 (4-5) collected Brown, wet, moderately den		5		Schedule 40 2" PVC Rise
66		,	****	brown, wet, moderately den	ise, coarse onto, intie sin	PID = 0pp	mv	
8	29	4-5-7-5 (12)			ately loose, SILT, some coarse sand, little fine	PID = 0.4p		
<u> </u>		_		Black, wet, moderately dens	se, SILT and coarse sand			
				Note: WCSB-6 (8-9) collected	ed for VOCs, EPH, VPH	PID = 2.2p	pmv	
<u> </u>	75	3-2-1-1 (3)	1.1.	Brown, wet, dense, coarse S	SAND			
10_		(5)	1, 11	Reddish brown, moist, dens	se, SILT, little medium to fine sand (PEAT)	PID = 0.1p	pmv	
<u> </u>			†.)\\\	Black, saturated, loose, SIL	T and gravel	_		Sand Filter Pack
						PID = 1.8p	pmv	0" D) (O
<u> </u>	25	1-1-1-1 (2)						2" P∀C Screen
12_		, ,	7	0		PID = 1.3p	pmv	
				Reddish brown, moist, dens	se, SILT, little sand (PEAT)			
			71,	0		PID = 0pp	mv	
	100	1-1-2-1 (3)		Brown, moist, dense, SILT a	and fine sand			
14			$\lfloor            $			PID = 0pp	mv	
<u> </u>								
	400	4444		0		PID = 0pp	mv	
16_	100	1-1-1-1 (2)			loose, sticky, SILT, some medium to fine	PID = 0pp	mv	

## Woodard & Curran 980 Washington Street Dedham, MA 02026

#### WELL NUMBER WCSB-7/ WCMW-7 PAGE 1 OF 1

Dark brown, dry, moderately loose, SAND and gravel fill  15_16_10  PID = 0.4ppmv	AM
DATE STARTED 9/25/13 COMPLETED 9/25/13 GROUND ELEVATION HOLE SIZE 2.0"  DRILLING CONTRACTOR Technical Drilling Services GROUND WATER LEVELS:  DRILLING METHOD Hollow stemmed auger AT TIME OF DRILLING 13.00 ft  LOGGED BY Ryan Smith CHECKED BY Jarrod Yoder AT END OF DRILLING  NOTES Second sampling event completed with Geoprobe on 11/22/2013. AFTER DRILLING  HELD SIZE 2.0"  AT TIME OF DRILLING 13.00 ft  AT END OF DRILLING  AFTER DRILLING  WELL DIAGRED BY SECOND SIZE AND AND AND AND AND AND AND AND AND AND	AM
DRILLING CONTRACTOR Technical Drilling Services  DRILLING METHOD Hollow stemmed auger  LOGGED BY Ryan Smith CHECKED BY Jarrod Yoder  NOTES Second sampling event completed with Geoprobe on 11/22/2013.  HELE OF DRILLING 13.00 ft  AT END OF DRILLING  AFTER DRILLING  MATERIAL DESCRIPTION  WELL DIAGRED BY SECOND SAND and gravel fill  Dark brown, dry, moderately loose, SAND and gravel fill  PID = 0.4ppmy Approved.	
DRILLING METHOD Hollow stemmed auger  LOGGED BY Ryan Smith CHECKED BY Jarrod Yoder AT END OF DRILLING  NOTES Second sampling event completed with Geoprobe on 11/22/2013. AFTER DRILLING  HELE OF DRILLING  AT TIME OF DRILLING  AT END OF DRILLING  AFTER DRILLING  WELL DIAGRA  Dark brown, dry, moderately loose, SAND and gravel fill  PID = 0.4ppmy	AM
LOGGED BY Ryan Smith CHECKED BY Jarrod Yoder AT END OF DRILLING  NOTES Second sampling event completed with Geoprobe on 11/22/2013. AFTER DRILLING  HELD OF DRILLING  AT END OF DRILLING  WELL DIAGRA SECOND SAMPLE SECOND SECON	AM
NOTES Second sampling event completed with Geoprobe on 11/22/2013. AFTER DRILLING ——  HL(£)  NOTES Second sampling event completed with Geoprobe on 11/22/2013. AFTER DRILLING ——  HL(£)  NOTES Second sampling event completed with Geoprobe on 11/22/2013. AFTER DRILLING ——  WELL DIAGRAPHICAL DESCRIPTION  Dark brown, dry, moderately loose, SAND and gravel fill  PID = 0.4ppmy	4M
MATERIAL DESCRIPTION  WELL DIAGR  WELL DIAGR  WELL DIAGR  WELL DIAGR  WELL DIAGR  Dark brown, dry, moderately loose, SAND and gravel fill  PID = 0.4ppm/	AM
Dark brown, dry, moderately loose, SAND and gravel fill  PID = 0.4ppmy	ΑM
Dark brown, dry, moderately loose, SAND and gravel fill  15.16.10  PID = 0.4ppmv	Flush
15-16-10  XXX   PID = 0.4ppmv	oadbox
Note: Woodard debris at ~1.5' bgs (PID =0.4 ppmv)	
2 (26) 2.0 PID = 0.1ppmv (27)	ative Fill
Light brown, dry, moderately dense, SAND	
21 6-16-12-37 Note: WCSB-7 (2.5-3) collected for PCBs, MCP 14 Metals on 9/25/2013	
PID = 0.3ppmv	
FID - 0.4ppniv	entonite Seal
29 (-1-1-5) Note: WCCR 7 (4.5) collected for VCCs. FRIL VRIL on 0/25/2013	Seai
Gray , moist, moderately dense, fine SAND, some silt	
	nedule 40 PVC Rise
(9)	
Blackish, moist, moderately defise, oil 1 and line saild	
Note: WCSB-7 (7.5-8.0) collected for VOCs on 9/25/2013  WCSB-7 (7.0-8.0) collected for WCP Metals and PCBs on	
10 (2) 11/22/2013 PID = 0 ormy	
Dark brown, moist to wet, dense, SILT and fine sand	
100 1-1-1-4 Dark brown, moist, dense, coarse SAND and silt	
12 (2) 12.0 PID = 0ppmv	
12.5 Brown, saturated, very loose, coarse SAND and silt	
67   5-4-4-5   · · · · · · · · · · · · · · · · · ·	
1   1   1   1   1   1   1   1   1   1	
Gray, wet, moderately dense, coarse SAND, little fine sand, little gravel	
1 16   1   (16)   1   (16)   1   (17)   (17	nd Filter Pack
	P∀C
/          <sub> </sub> ,•,•,∧ .	Screen
88 11-11-11-9: 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Screen
88   11-11-11-9。 (金)   18	Screen
88 11-11-11-9. (2) (22) (22) (22) (23) (23) (23) (24) (24) (25) (25) (25) (25) (25) (25) (25) (25	Screen
88 11-11-11-9	Screen
88 11-11-11-9 (22) PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv	Screen
88 11-11-11-9 (22) PID = 0ppmv  PID = 0ppmv  PID = 0ppmv  PID = 0ppmv  PID = 0ppmv  PID = 0ppmv	Screen
88 11-11-11-9 (22) PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv	Screen
88 11-11-11-9 (22) PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv PID = 0ppmv	Screen

	DDARD	980 Was Dedham	d & Curran shington Stree , MA 02026 ne: 781-251-0		WELL NUMBE	R WCSB-		MW-8 E 1 OF 1
		ty of Quinc	V		PROJECT NAME _175 & 189 Interval	e Street		
		-	226332.01		PROJECT LOCATION Quincy, MA			
DATE	STAF	RTED 9/25	5/13	<b>COMPLETED</b> 9/25/13		HOLE SIZE	2.0"	
DRILI	ING C	CONTRACT	TOR Technic	cal Drilling Services	GROUND WATER LEVELS:			
DRILI	LING N	METHOD _	Hollow stemn	ned auger	$\subseteq$ AT TIME OF DRILLING $\_$ 7.00 f	ft		
LOGG	SED B	Y Ryan S	mith	CHECKED BY Jarrod Yoder	AT END OF DRILLING			
NOTE	s				AFTER DRILLING			
DEPTH (ft)	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC SSB span	MATERIAL D	ESCRIPTION	Environmental Data	VELL DIA	GRAM Standpipe (3.75' above ground)
2				Brown, loose, dry, SAND and orga	anic debris			
	1		0.8			PID = 0.4ppmv		Native Fill
	75	6-13-15-2 (28)		Black, ASPHALT and/or coal (Ode	or noted)		<b>4</b>	Bentonite Seal
2			, , ,	Orange and brown, dry, dense, SI	LT and gravel	PID = 0.7ppmv		Schedule 40
<u> </u>			2.0	Black with orange, dry, moderately	y dense, SAND and silt, little gravel	-		2" PVC Rise
<u> </u>	-		2.5	Note: WCSB-8 (2-2.5) collected for	-	( DID 4		
5				Orange and gray, moist to wet, de		PID = 1ppmv		
Y.	75	12-5-3-2 (8)		Note: WCSB-8 (2.5-3) collected for	or PCRs MCP 14 Metals			
<u> </u>	1	(0)		140tc. 4400B-0 (2.0-0) collected to	or r obs, wor 14 wetais	PID = 0ppmv		
4_								
8 2								
- <u>-</u>						PID = 0.4ppmv		
<u>-</u>	50	2-1-1-1						
<u></u>	"	(2)						
6						PID = 0.3ppmv		
3/27	ļ		6.0	Black, wet, moderately dense, SIL	T some coarse to fine sand	- I 및		
<u> </u>				Black, wet, moderately defice, of	in, some source to line sund			
<u> </u>						PID = 0ppmv		
Š	67	4-2-3-3 (5)	7.0	⊻Blackish gray, saturated, loose, S	ILT, some fine sand			2" P∀C Screen
	1	(3)		Note: WCSB-8 (7-8) collected for	PCBs VOCs FPH VPH	PID = 0.1ppmv		00.00
8_			8.0 _		. 555, 7555, 2111, 7111			
<u>-</u>			1 77 1	Dark brownish maroon, moist, der	nse, SILT, trace sand (PEAT)	_		
000						PID = 0ppmv		
5	100	1-1-1-1						
- –	100	(2)						
10_	]		1, 11			PID = 0ppmv		
74			<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	Dark brownish red, moist, dense,	SILT little fine sand (DEAT)	-	#	Sand Filter
<u> </u>			1/2 1/2	Daik Diowillon reu, moist, dense,	SILT, IILLIE IIITE SAITU (PEAT)			Pack
<u> </u>			1			PID = 0ppmv		
	100		11.0_	Gray, moist, moderately loose, co	arse SAND, some fine sand	_		
8 — — 2	1	(3)		<i>y,</i>	,	DID = 0		
12_	]	,	********. *******.12.0 _		<u> </u>	PID = 0ppmv		

Bottom of borehole at 12.0 feet.

	OODARD		shingto , MA C	n Street		WELL NUMB	ER WC		CMW-9 AGE 1 OF 1
CLI	ENT _C	ity of Quinc	у			PROJECT NAME 175 & 189 Interv	ale Street		
PR	OJECT I	NUMBER _	22633						
DA	TE STA	RTED 9/2	6/13	COMPLETED	9/26/13	GROUND ELEVATION	HOLI	E SIZE _2.0"	
DR	ILLING	CONTRAC	TOR _	Technical Drilling Services		GROUND WATER LEVELS:			
							) ft		
LO	GGED E	Ryan S	mith	CHECKED BY	Jarrod Yoder	AT END OF DRILLING			
PG NO	TES _					AFTER DRILLING			
WOODARD & CURRAN STANDARD - WC STD.GDT - 3/5/14 12:17 - \ANDOVERIPROJECTS/226332 QUINCY MA - 175 & 189 INTERVALE STREETWIPS/UBS/URFACE SAMPLING/BORING LOGS/BD/RING LOGS/GD/RING LOGS/BORING LOGS/BORING LOGS/GD/RING LOGS/GD/RING LOGS/BORING LOGS/GD/RING LOGS/BORING LOGS/GD/RING L	(π) RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	Feet BGS	MATERIAL DI	ESCRIPTION	Environmental Data	WELL D	IAGRAM Flush Mounted
3/80				Brown, dry, mod	erately dense, coa	arse to medium SAND, some gravel			Roadbox
LIN L	-		$  \bigotimes $	Note: Fill observ	ed (glass and plas	stic)	PID = 0.9p	pmv H	+ Native Fill
SAM		16-10-25	]	1.0				)	
FACE	03	30 (35)	$  \bigotimes $	Dark brown, dry,	very dense, SILT	and sand (fill)			<ul><li>Bentonite</li><li>Seal</li></ul>
SSUR	7	(00)		Note: Fill observ	ed (glass and plas	stic)	PID = 9.8p	ppmv	
2	=		$\downarrow \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	<u> </u>	(1-2) collected for				<ul> <li>Schedule 40</li> <li>2" PVC Rise</li> </ul>
ME_			$  \times \!\!\! \times$	) Dark brown with	orange, dry, very	dense, SILT (fill)			
TRE			$  \bigotimes $	Note: Fill observ	ed (Glass, coal, pl	astic, and porcelain) or PCBs, MCP 14 Metals	PID = 1.1p	ppmv	
ALE S	100	57-28-12 17	<b>│</b> ⋙		(2.0 0) 001100100 1	or r obo, mor r r motalo			
ERV/	_   (40)								
<u>4</u>				<b>\</b>			PID = 1.6p	ppmv	
8 18			†*** <u>}</u>	<u>₹4.0</u> Brown, dry, loos	e, coarse to fine S	AND, little gravel, little silt			
175	$\dashv$						PID = 0.7p	nomy	
Y MA	┥			· ·			112 0.7		
OIIO	25	11-12-6-		<u>-</u>					
332 Q		` ′					PID = 2pp	omv 📙	
6 6	-			6.0					
ECT3	4			Brown, saturated	l, loose, medium t	o fine SAND, little gravel, little silt			
PRO				%  			PID = 0.8p	ppmv	
VER	21	5-6-4-4	ا. پ. يا	7.0	l loose seeres S	AND little grovel little eilt	<u> </u>		- 2" P∀C
NDC	$\dashv$	(10)	1.8.7	Si Diowii, Saluralet	i, loose, coarse sa	AND, little gravel, little silt			Screen
<u>}</u> _8			3::::	· · · · · · · · · · · · · · · · · · ·			PID = 0.6p	ppmv	
12:1			H:::o	\$\\\ \ Grav. saturated.	coarse SAND and	d gravel, some silt			
3/5/1	1			,			DID 0.4		
<u>- TÖ</u>	4		\$	9.0			PID = 0.1p	ppmv	
TD.G	25	3-5-6-2 (11)			moderately loose,	, SILT			
, wc	$\Box$	('')					PID = 0.1p	opmv	
10	<u>'</u>			10.0					Sand Filter
AND			T. M.		loose, SILT, little	gravel			Pack
TS NA				_			PID = 0.1p	pmv	
URR/	42	5-2-1-1		_					
8 - -	-	(3)		_					
A 12	2		10 1	-			PID = 0.1p	obmv	
00 M		_	_>T_1	12.0	Pottom of hor	cabala at 12.0 foot	<u></u>		

Bottom of borehole at 12.0 feet.

	DARD	980 Dec	Washir ham, M	Curran ngton Street IA 02026 781-251-0				BOR	ING NUMB		CCS-1
CLIEN	IT _C	-	-				_	E _175 & 189 Interv	vale Street		
						<b>FD</b> 5/40/44	_	ATION Quincy, MA		- 0.0"	
						ED <u>5/12/14</u>			HOLE SIZE	2.0"	
						vices		ER LEVELS: OF DRILLING			
						BY Jarrod Yoder		OF DRILLING			
					ling			RILLING			
DEPTH (ft)	RECOVERY %	GRAPHIC LOG	Feet BGS			MA	TERIAL DESCRIPT	TION			Environmental Data
200		71 / 7	0.3		-	ly TOPSOIL with mu					PID = 9.2ppr
			0	Brown, dr	y, loose, med	ium to fine SAND, litt	tle root debris				PID = 16.2pp
ў ———		$\times\!\!\times\!\!\times$	°1.0		observed (Pla CCS-1 (0.25-0	istic, asphalt) .5) collected for PCB	S. MCP 14 Metals				/ ID 10:24p
보 	Reddish brown, dry, moderately dense, sandy FILL										]
2			2.0	Note: Fill	observed (Asp	phalt, plastic, metal,	foam)				PID = 0.7pbr
<u> </u>	Black and brown, dry, loose, sandy FILL and asphalt										_
<u> </u>	Note: WCCS-1 (2.5-2.75) collected for PCBs, MCP 14 Metals										PID = 0ppm
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			5.0 •5.3	Note: WC	CS-1 (5.0-5.5	se to fine SAND, little  o) collected for PCBs, tial future sampling;	, MCP 14 Metals				 PID = 0.6ppr
NOTE (#))  HIGH (#)  O	40										
10			_10.0								
ANDA		-	10.0			Bot	ttom of borehole at	10.0 feet.			
WOODAKD & CORKAN &											

woo	DDARD	980 Ded	ham, MA	gton Street					BORIN	G NUN	IBER WO		<b>S-10</b> 1 OF 1	
	IRRAN IT C	ity of G	)uincv					PROJECT NAME 175	5 & 189 Interva	le Street				
			-	332.01				PROJECT LOCATION						1
			5/12/14		COMPLET	<b>ED</b> 5/12/14			-	HOLE	<b>SIZE</b> 2.0"			
						vices								Ť
														l
						BY Jarrod Yo								Ţ
				treet samp				AFTER DRILLIN						]
SSZ COUNCY MAY - 175 & 189 IN LEEVALE STREET WINTSOBSORY ALC SAMITLING BOOK IN COSSIDOR (III)  A DEPTH  (III)  (III)	RECOVERY %	GRAPHIC LOG	Feet BGS				MATI	ERIAL DESCRIPTION					Environmental Data	
פֿפֿ		7/7/	0.3		*	dy TOPSOIL wit						$\perp$		
¥ 	1			Brown, dr	y, moderately	dense, SILT ar	nd med	um to fine sand, some	gravel					
	-	o U	0.8					, MCP 14 Metals				$\perp \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$	PID = 0p	ph
F _		· 。 ()		Brown, dry	y, moderately	loose, coarse t	to fine S	SAND, some silt, little gr	avel					l
ESOUR FINAL	Note: WCCS-10 (2.5-3.0) collected for PCI  Dark brown, dry, loose, medium to fine SA											<b>↓</b> _	PID = 0p	ph
		1	· <u>1.9</u>					and silt il not characterized				+~	PID = 0p	ph
				Allquot Sa	ved for poteri	liai iuluie sairip	Jillig, Su	ii not charactenzeu						l
Ž	60													l
۸ ا			3.0									-		l
<u> </u>	-													
4														l
ő ð	1													
¥ E			5.0											l
5		1	5.0	Aliquot sa	ved for poten	tial future samp	oling; so	il not characterized				$^{+}$		l
<u> </u>	1													l
6_														l
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Z	50													l
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1/0														l
9	-													l
<u></u>	-													l
10														l
JAK		_	10.0				Rotto	m of borehole at 10.0 fe	a ot					+
WOODARU & CURRAN SI ANDARO SID. GD 1 - 7/6/14 12:3 - 1/ANDOVERIPROJECI SIZES							סטונט	in or boreliole at 10.0 fe	<del>ટ</del> ઇા.					
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2 2														
ě S														
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		DARD	980 Ded	Washii Iham, M	Curran ngton Street IA 02026 781-251-0200	BORING	NUMBER WC	<b>CS-11</b> E 1 OF 1
			ty of C	Quincy		PROJECT NAME 175 & 189 Intervale S	Street	
				-	5332.01			
					4 COMPLETED 5/12/14			
					R Technical Drilling Services			
					eoProbe			
					th CHECKED BY Jarrod Yoder			I .
J.					Street sampling	AFTER DRILLING		
35	10.2		00.	lgrood (	Stroot damping			-
KING LOGS/BORING LO	о <u>DE</u> РТН (ft)	RECOVERY %	GRAPHIC LOG	Feet BGS	MATE	ERIAL DESCRIPTION		Environmental Data
080			7/1/2	1	Brown, dry, loose, sandy TOPSOIL with mulch	n, leaves		
Ž.	- +		1/ 1/	0.5	Brown, dry, moderatley loose, coarse to fine S	SAND little gravel little silt		_
SAM					•	_		
-ACE			*******	1.3	Note: WCCS-11 (0.75-1.0) collected for PCBs			PID = 0ppm\ 
SUR					Dark brown, damp, moderately dense, mediur	n to fine SAND and silt, little gravel		PID = 0ppm\
SUS.	_ 2			2.0	Note: WCCS-11 (2.5-3.0) PCBs, MCP 14 Met			PID = 0ppm\
≱					Aliquot saved for potential future sampling; so	il not characterized		
뷥		67						
N H								
YY.	_			3.3				
<u> </u>	4							
α 185								
c/L-								
Y MA				5.0				
			-	3.0	Aliquot saved for potential future sampling; so	il not characterized		_
32.00	- 1							
\2263	6							
2								
SS								
VER.								
OUN	- 4							
-	8	60						
12:3								
//8/14	- 1							
-								
5. 10. 6.								
S C S	- 1							
- בר	_10_			1 _10.0				'
NDA.			-	10.0	Botto	m of borehole at 10.0 feet.		
200								
YKKA A								
ر ک								
A L								

	DDARD	980 Ded	odard & Curran I Washington Street dham, MA 02026 ephone: 781-251-0200	BORING NUMBER WO	CCS-12 GE 1 OF 1
CLIEN	<b>NT</b> Ci	ty of C	Quincy	PROJECT NAME _ 175 & 189 Intervale Street	
				PROJECT LOCATION Quincy, MA	
				GROUND ELEVATION HOLE SIZE _2.0"	
			RACTOR Technical Drilling Services		
DRILI	LING N	/ETH	OD GeoProbe	AT TIME OF DRILLING	
LOGG	SED B	<b>Y</b> _Ry	yan Smith CHECKED BY Jarrod Yoder		
NOTE	<b>S</b> _50	0 Cor	ngress Street sampling	AFTER DRILLING	
NOTE (II) 2 DEPTH (IIII) 2 DEPTH (IIII) 2 DEPTH (IIII) 2 DEPTH (III) 2 DEPTH (III) 2 D	RECOVERY %	GRAPHIC LOG	MA Feet BGS	ATERIAL DESCRIPTION	Environmental Data
0		7/1/	<sub>0.3</sub> Brown, dry, loose, sandy TOPSOIL with mu	lch, leaves	
	1		Dark brown, dry, moderately dense, mediur	n to fine SAND and silt	
<u></u>			Note: Fill observed (Metal, plastic, wood, sla	ag)	PID = 0ppm
- E			WCCS-12 (0.75-1.0) collected for P0 WCCS-12 (1.0-1.25) collected for P0	CBs, MCP 14 Metals	PID = 0ppm
2			WCCS-12 (3.5-4.0) collected for PC	Bs, MCP 14 Metals	PID = 0ppm
			Aliquot saved for potential future sampling;	soil not characterized	
<u> </u>	50				
Ž					
A P					
	1				
4_					
8 					
<u> </u>					
			Aliquot saved for potential future sampling;	soil not characterized	_
E					
6_					
3					
2	1				
<u> </u>	100				
8_	100				
† 					
	1				
<u>-</u>	1				
<u> </u>					
10_	]				
Z Z		-	10.0 Bo	ttom of borehole at 10.0 feet.	
N N			50	2. 2010/1010 dt 1010 (00t.	
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Q.					
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4		Woodard 8 980 Washi	k Curran ngton Street	i.		BORI	NG NUMBER V	VCCS-13 PAGE 1 OF 1
	DARD	Dedham, N						
1		of Quincy				PROJECT NAME 175 & 189 Inte	rvale Street	
PROJ	ECT NU	JMBER 22						
DATE	START	<b>TED</b> _5/12/1	4	<b>COMPLETED</b> <u>5/12/14</u>		GROUND ELEVATION	HOLE SIZE _2.0"	
DRILL	ING CO	ONTRACTO	R Technic	al Drilling Services		GROUND WATER LEVELS:		
DRILI	ING ME	ETHOD _Ge	eoProbe			AT TIME OF DRILLING	•	
		-		_ CHECKED BY _Jarrod Yode				
NOTE	S 500	Congress	Street samp	oling		AFTER DRILLING		
ACTION OF THE STAT	RECOVERY %	CKAPHIC COO Feet BGS			MATI	ERIAL DESCRIPTION		Environmental Data
N N N N N N N N N N N N N N N N N N N	1.	0.3	Dark brov	vn, dry, loose, medium to fine S	SAND	and silt		
Ĭ  -			Note: WC	CCS-13 (0-0.25) collected for Po	PCBs, I	MCP 14 Metals		/ PID = 0p
						T and medium to fine sand, some	gravel, trace fill	PID = 0p
¥ D				observed (Metal, plastic)				PID = 0p
300X	.		WC WC	CCS-13 (0.5-0.75) collected for CCS-13 (3.0-3.5) collected for F	r PCBs PCBs.	s, MCP 14 Metals MCP 14 Metals		PID = 0p
2_				,	•			
<u> </u>	40							
Z Z	40							
ALE.								
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<u> 4</u>								
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≥ 		5.0	All and a second			the state of the second		
			Allquot sa	aved for potential future sampli	ing; so	ii not characterized		
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15/22								
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WOODARD & CURRAN STANDARD - WC STD. CDT - 1/8/14 12.31 - 1/8/15 DOVER 1 PC 25.25 CD		10.0			Botto	m of borehole at 10.0 feet.		
<u></u>								
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3 *								
A A A								
500								

	DDARD	980 Ded	oodard & Curran D Washington Street dham, MA 02026 ephone: 781-251-0200	BORING NUMBER W	CCS-2 GE 1 OF 1				
		ty of C	Quincy	PROJECT NAME 175 & 189 Intervale Street					
		-		PROJECT LOCATION Quincy, MA					
				GROUND ELEVATION HOLE SIZE _2.0"					
			RACTOR _Technical Drilling Services						
				AT TIME OF DRILLING					
			OD GeoProbe  yan Smith CHECKED BY Jarrod Yoder						
2									
NOTE	- <b>3</b> _5(	JU COI	ngress Street sampling	AFTER DRILLING	+				
DEPTH (#)	RECOVERY %	GRAPHIC LOG	MATE Feet BGS	ERIAL DESCRIPTION	Environmental Data				
j		7/1/2	Brown, dry, loose, sandy TOPSOIL with mulch	, leaves					
<u> </u>	1	<del>''                                   </del>	0.5  Brown, dry, dense, medium to fine SAND, little	silt trace root/ wood debris	+				
5	1		·						
2			Note: WCSS-2 (0.5-0.75) collected for PCBs, I WCSS-2 (1.5-1.75) collected for PCBs,	MCP 14 Metals MCP 14 Metals	PID = 0.1ppr				
			i i		PID = 7.2ppr				
2_	1		2.0						
			Brownish red, damp, dense, SAND and silt, so	me granite debris	PID = 0ppm				
	60		Note: Fill observed (Thick rubber, concrete, me WCCS-2 (4-4.5) collected for PCBs, MC	etal) PD 14 Metals	PID = 0.8ppr				
	1	***	vocs-2 (4-4.3) collected for Fobs, Mc	or 14 iviciais	PID = 0ppm				
- -	1								
4									
Š	1								
<u> </u>	1								
	1		5.0						
		Ť	Aliquot saved for potential future sampling; soi	I not characterized					
6_	1								
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10									
10		_	10.0						
			Bottor	m of borehole at 10.0 feet.					
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NACC									

		DARD	980 Dec	oodard & Curran 0 Washington Street dham, MA 02026 lephone: 781-251-0200	BORING	G NUMBER WO	CS-3 1 OF 1
			tv of C	Quincy	PROJECT NAME 175 & 189 Intervale S	Street	
			-	BER 226332.01			
				5/12/14 <b>COMPLETED</b> 5/12/14		HOLE SIZE 2.0"	
				TRACTOR Technical Drilling Services			
				HOD GeoProbe	AT TIME OF DRILLING		
				tyan Smith CHECKED BY _Jarrod Yoder			I
3				ongress Street sampling			
	NOIE	<b>3</b> _ <u>5</u> (	10 COI	ongress Street sampling	AFTER DRILLING		$\rightarrow$
KING LOGS/BORING LO	O DEPTH (ft)	RECOVERY %	GRAPHIC LOG	MATI Feet BGS	ERIAL DESCRIPTION		Environmental Data
S S S			711/2	0.3 Brown, dry, loose, sandy TOPSOIL with mulcl			_
Ž.	- +			Light brown, dry, loose, fine SAND, little silt, li	ttle root debris		PID = 16.2ppr
SAM				Note: WCCS-3 (0.25-0.5) collected for PCBs,	MCP 14 Metals		PID = 4.4ppm
ACE				Brown, dry, moderately dense, medium to fine	e SAND and fill		
Š				Note: Fill observed (Plastic, coal, rubber)			PID = 8.8ppm
SUB	_ 2			3.1.8 Brown, moist, dense, medium to fine SAND, s	some silt		- ]
₩ F				<b>⋄</b> ∥°•			PID = 0ppm
Ĥ.		53		Note: WCCS-3 (2.0-2.25) collected for PCBs, WCCS-3 (4.5-5.0) collected for PCBs,	MCP 14 Metals MCP 14 Metals		PID = 0ppm
<u>.</u>							
(VAL							
189	_ 4 _						
ري پ							
1A - 1							
<u>ک</u>			-	5.0	il a ak ah ara akarina d		_
				Aliquot saved for potential future sampling; so	oil not characterized		
2332	6						
3/22							
JEC.	_						
וארו							
SVE F							
AND	- 1	68					
31 - 1	8	00					
4 12:							
1/8/ <i>J</i>	- 1						
<u>.</u>							
SID.C							
WC.							
- DX	10_					ı	
NDA.			-		om of borehole at 10.0 feet.		
i o z							
Z Y Y							
S S							
AKD							

	DODARD	980 Ded Tele	oodard & Curran  0 Washington Street edham, MA 02026 lephone: 781-251-0200	BORING NUMBER WCCS-4 PAGE 1 OF 1
			Quincy PROJECT NAME _175 & 18	9 Intervale Street
			BER 226332.01 PROJECT LOCATION Quir	
			5/12/14	·
			FRACTOR Technical Drilling Services GROUND WATER LEVELS	
				G
				3
				-
33			Tigreed ettect earnpring	
	H	GRAPHIC LOG	MATERIAL DESCRIPTION  Feet BGS	Environmental Data
J'BC		7/1/	Brown, dry, loose, sandy TOPSOIL with mulch, leaves	
	$\dashv$	1/ 1/	.1	PID = 2.4ppr
SAM ——	_		0.8  Light brown, loose, dry, medium to fine SAND, some root debris, little silt	110 - 2.490
ACE			Note: WCCS-4 (0.75-1.0) collected for PCBs, MCP 14 Metals	
			WCCS-4 (1.5-1.75) collected for PCBs, MCP 14 Metals	PID = 1.4ppr
2	_		2.0	
₩ H			Dark brown with orange, dry, moderately dense, medium to fine SAND and	silt
A 	75		Note: Fill observed (Rubber, coal, plastic)	
<u>v</u> ——	-		WCCS-4 (4.0-4.5) collected for PCBs, MCP 14 Metals	PID = 0ppm
KVAL	_	XXX	3.3	PID = 0ppm
4		>-<	Pulverized GRANITE	
186			Note: Polished granite observed	PID = 0ppm
1/5	_			
MA-				
NC.		†	Aliquot saved for potential future sampling; soil not characterized	
7 M	$\dashv$			
6	_			
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200				
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2:31				
- 41/8	_			
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D.GD				
<u>ာ</u> —	$\dashv$			
<u>}</u> 10				1
TACA TACA		-	Bottom of borehole at 10.0 feet.	
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KAN A				
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AKD				

Woo	98 De	0 Wash edham, I	& Curran hington Street MA 02026 e: 781-251-0200	BORING NUMBER WCCS-5 PAGE 1 OF 1				
&cu	IRRAN							
1	IT City of	-						
				PROJECT LOCATION Quincy, MA				
1			/14		)"			
1			OR Technical Drilling Services					
1			GeoProbe					
		-	mith CHECKED BY Jarrod Yoder					
b NOTE	<b>S</b> 500 Cd	ongress	s Street sampling	AFTER DRILLING				
WOODAND & CURRAN STANDAND - WC STD. GD 1-7/8/14 12:31 - (ANDOVERSIPROJECT SIZZESSZ QUINCY MA - 175 & 189 IN TERVALE STREETWIP/SUBSURFACE SAMPLING BORRING LOGS GPD   O DEPTH   O	RECOVERY % GRAPHIC	Feet BGS	V	MATERIAL DESCRIPTION	Environmental Data			
, EC	- N 1N	0.3	Brown, dry, loose, sandy TOPSOIL with m	nulch, leaves	— PID = 12.9pp			
<u> </u>			Brown, dry, moderately dense, medium to	fine SAND, little silt				
			Note: WCCS-5 (0.25-0.5) collected for PC	CBs, MCP 14 Metals				
ACE -ACE								
		1.7			PID = 1.7pp			
2_			Reddish brown, moist, dense, SILT and m	nedium to fine sand	PID = 0.4pp			
	60	2.7	Note: Fill observed (Glass, plastic, asphal WCCS-5 (1.5-1.75) collected for Po	t, slag) CBs, MCP 14 Metals	PID = 0.4pp			
<u></u>			Gray, moist, moderately dense, coarse to	medium SAND				
A			Note: WCCS-5 (4.0-4.5) collected for PCE	3s, MCP 14 Metals	PID = 0pph			
4								
× 18								
<u>₹</u>		5.0						
			Aliquot saved for potential future sampling	g; soil not characterized				
332.0								
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7 2 2 1								
5								
<u> </u>	77							
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<u></u>	<u> </u>							
¥		10.0	E	Bottom of borehole at 10.0 feet.				
A N								
YKAN								
AKD AKD								
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		DARD	980 Ded	dard & Curran Washington Street nam, MA 02026 phone: 781-251-0200	
			ty of C	uincy PROJECT NAME 175 & 189 Intervale Street	
			-	R 226332.01 PROJECT LOCATION Quincy, MA	
				5/12/14	
				ACTOR Technical Drilling Services GROUND WATER LEVELS:	
				D GeoProbe AT TIME OF DRILLING	
				an Smith CHECKED BY Jarrod Yoder AT END OF DRILLING	
				gress Street sampling AFTER DRILLING	
9	1		0 001	gress offeet sampling	-
20 0	(#) O	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION  Geet 1905	Data
200			7/1/2		
<u> </u>	$\dashv$		1/ 1/	0.5 Brown, dry, moderately loose, medium to fine SAND, little gravel, little silt	ID = 1.9pbr
WAIN				P	ID = 2.4ppr
ACE.				Note: WCCS-6 (1.0-1.25) collected for PCBs, MCP 14 Metals	ID = 2.2ppr
NOS.				Brown, damp, moderately dense, SILT and medium to fine sandy fill	.b – 2.2ppi
	2			Note: Fill observed (Brick, porcelain, metal, plastic)	PID = 1ppm
				WCCS-6 (2.0-2.25) collected for PCBs, MCP 14 Metals	ווט = ipprii
ᆔ		53		WCCS-6 (4.0-4.5) collected for PCBs, MCP 14 Metals	PID = 0ppm
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- A	4				
2	4				
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-	$\exists$				
¥ 				5.0	
	ľ			Aliquot saved for potential future sampling; soil not characterized	
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0770	6_				
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XII	$\neg \uparrow$				
HIND.	$\dashv$	77			
-	8	11			
7 1 7					
1/8//					
-	$\dashv$				
SID.					
)   	10				
			_	10.0	
AND				Bottom of borehole at 10.0 feet.	
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	WOO	DARD	980 Dec	Washi dham, M	c Curran ngton Street IA 02026 : 781-251-0200	BORING NUMBER W	VCCS GE 1 (	
			tv of C	Quincy		PROJECT NAME 175 & 189 Intervale Street		
			-	-	6332.01	· · · · · · · · · · · · · · · · · · ·		
						GROUND ELEVATION HOLE SIZE 2.0"		
					R Technical Drilling Services			
					eoProbe	AT TIME OF DRILLING		
					ith CHECKED BY _Jarrod Yoder			
5					Street sampling	AFTER DRILLING		
KING LUGS/BORING LUGS	o DEPTH (ft)	RECOVERY %	GRAPHIC LOG	Feet BGS	MAT	ERIAL DESCRIPTION	Environmental	Data
פפר			\(\frac{1}{2\ldots}\)		Brown, dry, loose, sandy TOPSOIL with mulc	h, leaves	ы	O = 1.3ppr
MPLIF			ľπ	0.5	Brown, dry, loose, medium to fine SAND, little	e silt, little root debris		
TACE SAI				1.5	Note: WCCS-7 (0.75-1.0) collected for PCBs, WCCS-7 (1.25-1.5) collected for PCBs	MCP 14 Metals s, MCP 14 Metals	PI	ID = 0ppm
BSCH	2			1.8	Dark brown, dry, moderately dense, sandy Fl	LL	<u> </u>	_
200					Note: Fill observed (Fiberglass, porcelain)		1 /	ID = 0ppm ID = 0ppm
<u>.</u>		70		° <u>2.3                                    </u>	Tan, damp, moderately dense, medium to fine	e SAND	$\top_{\Gamma}$	
2		70		'	Note: WCCS-7 (4.0-4.5) collected for PCBs, I	MCP 14 Metals	PI	ID = 0ppm
ALE					Orange brown, moist, very dense, SILT			
MA - 1/5 & 189 IN IER	4							
JIN C				5.0	Aliquot saved for potential future sampling; so	oil not characterized		
32 C								
/2203	6							
3								
NER!								
AND A		65						
- IS	88	00						
14 12.								
/0// -								
95								
2								
- WC	10			]				
DARL			-	10.0	Rotte	om of borehole at 10.0 feet.		$\dashv$
SIAN					Bolli	on politicia at 10.0 leet.		
YAN								
SUS.								
ARD &								
ì٤								- 1

_	1	980		gton Stree	t			BORING	G NUMBER	PAGE 1	
	DDARD			A 02026 781-251-0	)200						
CLIEN	<b>NT</b> _C	ty of C	Quincy				PROJECT NAME 175 & 18	89 Intervale S	Street		
PROJ	ECT N	IUMBI	ER _226	332.01			PROJECT LOCATION Qui	incy, MA			
DATE	STAF	RTED	5/12/14	1	COMPLETED	5/12/14	GROUND ELEVATION		HOLE SIZE 2.0	0"	
DRIL	LING	CONTI	RACTOF	R Technic	al Drilling Service	es	GROUND WATER LEVELS	S:			
DRIL	LING I	ИЕТН	OD Ge	oProbe			AT TIME OF DRILLIN	NG			
	GED B	<b>Y</b> _Ry	an Smit	h	CHECKED B	Y Jarrod Yoder	AT END OF DRILLIN	G			
NOTE	<b>S</b> 50	00 Cor	ngress S	treet samp	oling		AFTER DRILLING				
#I (#) 2 4 4 6 8 10	RECOVERY %	GRAPHIC LOG	Feet BGS			МАТ	ERIAL DESCRIPTION			Environmental	Data
		71 1 <sub>N</sub> N	0.3	Brown, di	ry, loose, sandy	TOPSOIL with mulc	ch, leaves				D 04
-  -	1		•	Light brow	wn, dry, loose, m	edium to fine SANI	O, little silt, little root debris			PII	D = 0.1pb
<u> </u>	1		0.9			6) collected for PCB				_ PII	D = 1.3pp
			:	Gray brov	wn, dry, moderat	ely dense, coarse to	o fine SAND				
			1.8		observed (Metal		Do MCD 14 Motolo			Р	PID = Oppn
2_	1					<ul><li>60) collected for PCI</li><li>e, SILT, little mediu</li></ul>	·			/_ <sub>P</sub>	PID = 0ppn
<u> </u>	80			Note: WC	CCS-8 (3 75-4 25	b) collected for PCB	s MCP 14 Metals				
	] "			14010. 110	300 0 (0.70 4. <b>2</b> 0	) concoled for 1 OB	o, Mor 14 Metalo			P	PID = 0ppn
<u> </u>	1									P	PID = Oppr
4_	-									'	ів – оррі
5											
	ļ ——		5.0	All and a final		I. S. A	-11				
	1			Aliquot sa	aved for potentia	i future sampling; so	oil not characterized				
6											
<u> </u>	1										
	1										
	53										
8_	1										
	1										
<u> </u>	1										
10_											
-		-	10.0			Bott	om of borehole at 10.0 feet.				
٠ـــــــــــــــــــــــــــــــــــــ											

4	1	980	odard & 0 Washing Iham, MA	gton Street			В	ORING NUMBER	WCCS-9 PAGE 1 OF 1		
	DDARD JRRAN			781-251-02	200						
CLIEN	NT C	ity of C	Quincy				PROJECT NAME _175 & 189 Intervale Street				
PROJ	ECT N	IUMBI	ER _2263	332.01			PROJECT LOCATION Quinc	y, MA			
							GROUND ELEVATION	HOLE SIZE 2.0"			
DRILI	LING	CONTI	RACTOR	_Technica	Il Drilling Services		GROUND WATER LEVELS:				
					_ CHECKED BY _						
NOTE	S <u>50</u>	00 Cor	igress St	reet samp	ing		AFTER DRILLING				
DEPTH (ft) A 1991 NITERIALE STATE INTO SECURING EXCESSION OF COSTO SECURING EXCESSION	RECOVERY %	GRAPHIC LOG	Feet BGS				MATERIAL DESCRIPTION				
		711/2	0.3	Brown, dry	, loose, sandy TO	PSOIL with mulc	h, leaves				
	1			Dark brow	n, damp, moderate	ely dense, coarse	to fine SAND, some silt, little re	oot debris			
<u>ر</u> ا				Note: WC	CS-9 (0.5-0.75) co	llected for PCBs,	MCP 14 Metals				
<u> </u>	-		1.3	Dark brow	n, dry, moderately	dense, medium	to fine SAND and silt				
2_			1.8	Note: Fill o	observed (Brick, pl	erved (Brick, plastic, coal)					
			23	WC	CS-9 (1.0-1.25) co	llected for PCBs					
<u> </u>	60				•		medium to fine sand				
	1				CS-9 (3.5-4.0) colleged for notential fu		MCP 14 Metals ill not characterized				
<u> </u>			<u>'</u> -	7 iiiquot ou	vou ioi potoritiui iu	<u></u>					
4											
8											
<u>-</u>											
			5.0								
				Aliquot sa	ved for potential fu	ture sampling; so	il not characterized				
<u> </u>	1										
<u> </u>											
	50										
8_											
5											
<u> </u>											
_10_	<u> </u>		10.0								
		_		· · · · · · · · · · · · · · · · · · ·			Bottom of borehole at 10.0 fee	et.			
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	1	980	odard & Curran Washington Street ham, MA 02026	BORING NUMBER WCVS-1 PAGE 1 OF 1
&cu	DARD IRRAN	Tele	phone: 781-251-0200	
		-	·	JECT NAME 175 & 189 Intervale Street
				JECT LOCATION Quincy, MA
1				OUND ELEVATION HOLE SIZE _2.0"
1			RACTOR Technical Drilling Services GRO	
			OD GeoProbe	AT TIME OF DRILLING
, <b>I</b>		_	an Smith CHECKED BY Jarrod Yoder	AT END OF DRILLING
	S 40	Vern	on Street sampling	AFTER DRILLING
DEPTH (ft)	RECOVERY %	GRAPHIC LOG	MATERIAL Feet BGS	NOITAIN2SEAD NOITAIN2SEAD Data
			Light brown, dry, loose, fine SAND, little silt	PID = 0pp
 	1		Note: WCVS-1 (0-0.25) collected for PCBs, MCP 14	Metals   /
			Brown, dry, moderately loose, medium to fine SAND	
			1.2 Black, dry, loose, sandy FILL	
F			Note: Sandy fill materials annears to be fine coal/ ta	PID = 0ppr
_ 2	-		WCVS-1 (2.5-3) collected for PCBs, MCP 14	Metals
2		,,	Gray, damp, moderately, loose, coarse to fine SANE	O and granite debris
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<del> </del>				
<u> </u>			5.0	
		: 7.	Gravelly substrate with very poor recovery	
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L _	1			
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				archala at 40 0 fact
10			Bottom of b	porehole at 10.0 feet.

Woodard & Curran 980 Washington Street Dedham, MA 02026							BORING NUMBER WCVS-2 PAGE 1 OF 1					
	DDARD			мA 02026 e: 781-251-02	200							
CLIEN	NT _C	ity of C	Quincy				PROJECT NAME _175 & 189 Intervale Street					-
PROJ	ECT N	NUMBE	ER _22	26332.01			PROJECT LOCATION _	Quincy, MA				
DATE	STA	RTED	5/12/	14	COMPLETED	<b>5</b> /12/14	GROUND ELEVATION		HOLE SIZE 2.0	)"		ļ
DRILI	LING	CONTR	RACTO	OR Technica	I Drilling Servic	es	GROUND WATER LEV	ELS:				
1												Ŧ
		-				Y Jarrod Yoder						ł
NOTE	S _40	) Vern	on Str	eet sampling			_ AFTER DRILLING	<del></del>				╪
WOODANO & CURKAN STANDAYEAR STAND	RECOVERY %	GRAPHIC LOG	Feet BGS			MAT	ERIAL DESCRIPTION				Environmental Data	
IG/BO			0.3	Light brow	n, dry, loose, fi	ne SAND					PID = 0p	pm
<b>⋚</b>   −	1		0.7			ollected for PCBs, N	ICP 14 Metals				' _	
NA NA	1				mbled ASPHAL		SAND some gravel so	me silt trace fill	material		PID = 0p	ρh
A				Brown, dry, moderately dense, medium to fine SAND, some gravel, some silt, trace fill material  Note: Fill observed (Coal, plastic, slag, wood)							PID = 0p	pm
2			1.8	WC	VS-2 (2.5-3.0)	collected for PCBs,	MCP 14 Metals				− PID = 0p	
200				Aliquot sa	ved for potentia	al future sampling; so	oil not characterized				TID OP	]¨
<u>-</u>	60											
 Σ	-		3.0									
S ALE												
<u> 4</u>	1											
<u> </u>	-											
- AM												
			5.0	Aliquot sa	ved for potentia	al future sampling; so	oil not characterized				_	
S — —												
6_												
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10_		_	10.0									$\downarrow$
ANC						Botto	om of borehole at 10.0 fee	et.				
N N N												
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S 												